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Public Utilities

FORTNIGHTLY

Volume LII No. 13 December 17, 1953

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Public Utilities

FORTNIGHTLY

VOLUME LII | DECEMBER 17, 1953 | NUMBER 13

ARTICLES

FEATURE SECTIONS

PUBLIC UTILITIES FORTNIGHTLY . . stands for Federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for nondiscriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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TWO 200,000 KW UNITS

More B&W Pressure-Fired Units on the line

Low-Cost Kilowatts from the GIANTS at KANAWHA

The most efficiently generated electric power in history is being put into American Gas and Electric Company's network from the new Kanawha River plant.

Kanawha River is the latest and most efficient addition to American Gas and Electric's already highly efficient system, and this achievement is a continuing result of painstaking attention to every detail of design and construction—from the coal pile to the switchyard. It calls for cooperative engineering of the highest order.

Helping to make Kanawha's record possible are two B&W Radiant Reheat Boilers, the largest pressure-fired units in the world, incorporating many advanced engineering principles.

Pressure-Firing

The smooth operation of these units can be attributed, in a large part, to B&W pressure-firing. This also contributes to the high thermal efficiency. These boilers were started up and operated without the use of standby induced-draft fans.

These two new units are the eighth and ninth in the American Gas system which are pressure operated, the first having gone into service more than four years ago. *There are now more than 15 large coal-fired pressurized B&W boilers in operation.* More than 70 additional pressure-fired units are under construction.

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Positive natural circulation is assured by the B&W Cyclone Steam Separators at the drum design pressure of 2400 psi. Turbine efficiency is maintained and turbine outages for blade cleaning are reduced since the steam from the Cyclone Steam Separator and steam scrubber is of exceptional purity.

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Building volume has been held to a minimum and slag build-ups on convection surface have been reduced by the use of B&W's simple divided-furnace construction. The heating surface of the furnace division wall is used to the maximum since heat is absorbed on both sides.

These are but a few of the many ingredients that go into the making of low-cost kilowatts. One of the most important requirements is *experience*, and B&W will be pleased to place at your disposal the benefit of its knowledge gained through actual long-time experience with modern central-station boilers.

BABCOCK & WILCOX

BOILER DIVISION

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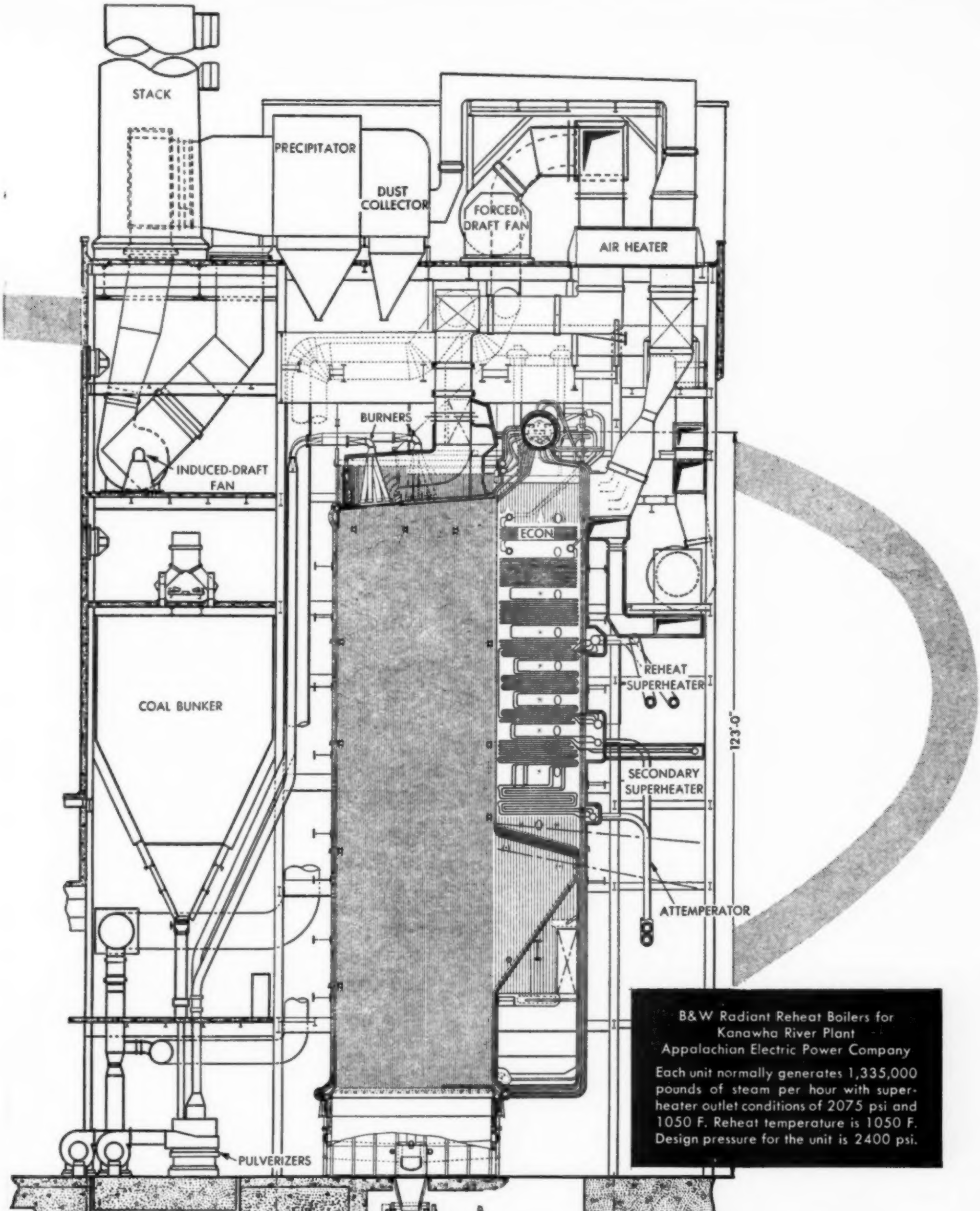

B&W Radiant Reheat Boilers for
Kanawha River Plant
Appalachian Electric Power Company

Each unit normally generates 1,335,000 pounds of steam per hour with superheater outlet conditions of 2075 psi and 1050 F. Reheat temperature is 1050 F. Design pressure for the unit is 2400 psi.

Pages with the Editors

WE don't know whether this issue will precede a traditional white Christmas or not. At the moment of writing, an unseasonably warm fog had settled over the nation's capital—at least to the extent of weather conditions. But whatever the weatherman has in store, we know from the advance sales of the store merchants and other pre-Christmas activity that Santa Claus is going to do a big business this year. And since it all seems to have gotten off to an early start, we would like to take this occasion of getting ahead of the last-minute rush, our wishes to all friends and subscribers for a very merry yuletide. Add to that, of course, our sincere hope for a happy and prosperous New Year—another event to which reliable indications seem to point at this writing.

AND since this is the season for surprises, we would like to give our readers at least a slight hint about a surprise in store for them. All we can say just now is: Don't miss examining the next issue of your FORTNIGHTLY as soon as it arrives. It will be our January 7th issue and therefore cannot very well be opened before Christmas. But we will guarantee this much—it will be entirely unlike any issue of PUBLIC UTILITIES FORTNIGHTLY you have ever seen in twenty-five years. In fact, it will be the first issue of 1954, which is the silver anniversary of the publication of PUBLIC UTILITIES FORTNIGHTLY.

STUART W. JOHN

THOMAS E. J. KEENA

WHILE none of us would begrudge the happy children, such as those depicted in the frontispiece in this issue, the thrill of a white Christmas, we could name a good many fine people in the utility business who may not get too much excited about it. We could find a good many of these people up in New England, where the usual winter snow and ice are no joke to those who have an obligation to the public for maintaining service. Herodotus might well have included—along with the latter-day postal employees—the public utility linemen in his famous comment about those faithful couriers who are not kept from the swift completion of their appointed rounds by inclement weather.

THOMAS E. J. KEENA, author of the opening article in this issue on "Beating New England Weather," is a native of Hartford and a graduate of Yale (BA, '41) who began doing some work on the staff of *The Hartford Courant* even

while in school. After World War II service with antiaircraft troops in Sicily, southern France, and Belgium, he returned to that famous newspaper on general assignment in 1945. He took a year's sabbatical, so to speak, in 1949 for special studies at Sorbonne and Oxford. He is now an editorial writer with the *Courant*.

* * * *

STUART W. JOHN, whose article "Utility Earnings and Business Recessions" begins on page 897, is manager of the rate department of Commonwealth Services Inc. He is a graduate of the Massachusetts Institute of Technology ('26). The following year he joined the Dallas Power & Light Company as a rate engineer and during World War II served in the Navy, first as an officer and later as a civilian engineer. He entered Ebasco Services in 1947, and was given his present position in 1951.

* * * *

A TRIP gave one of the authors in this issue (see page 907) an opportunity to write a reporter's account of what was almost literally a bird's-eye view of current improvements and expansion in the deep South. He is SIDNEY P. ALLEN, financial editor of the *San Francisco Chronicle* since 1940, who has been writing for that paper since 1933. His columns on financial and economic affairs are well known to newspaper readers on the West coast. During World War II MR. ALLEN served for a short while with the old WPB Office of War Utilities in Washington, D. C.

JOSEPH SHARFSIN

SIDNEY P. ALLEN

* * * *

THE consumer's point of view in considering the development of public utility regulation over the past four hectic decades is ably presented in the article "Fairness to Utility Customers," which begins on page 912. The author is a distinguished member of the Philadelphia bar, JOSEPH SHARFSIN, who was city solicitor from 1936 to 1940. A native Philadelphian, he received his education at Dickinson College Law School. MR. SHARFSIN has also served as counsel to the Philadelphia Authority, special counsel to former Federal Works Administrator John M. Carmody, and special counsel to the President's Committee on Fair Employment Practices in 1944. He has also been active in Democratic politics and was the candidate of his party for mayor in 1951. He is presently engaged in the practice of law, giving special attention to labor disputes and public utility rate matters in the Philadelphia area.

THE next number of this magazine will be out January 7th.

The Editors

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Coming IN THE NEXT ISSUE

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LESSONS TO BE LEARNED FROM REGULATION

It was just twenty-five years ago that the first issue of PUBLIC UTILITIES FORTNIGHTLY was published as a magazine of general circulation. Devoted to the regulation of public utilities and allied topics, it arrived on a scene of bitter controversy in its chosen field of endeavor. Since then there have been other controversies and important developments, all of which have been mirrored critically, sympathetically, and analytically in the pages of the FORTNIGHTLY. In this issue, which marks the beginning of its silver anniversary year, Henry C. Spurr, who has been on the editorial bridge for the full span of the quarter-century, gives us impressions of the past, present, and future of regulation, as drawn from the rich background of his experience.

SEVENTY-FIVE YEARS OF ELECTRIC LIGHT

The year 1954 marks the seventy-fifth anniversary of Edison's incandescent light, which the electric industry will observe during the year as Light's Diamond Jubilee. It follows closely on the seventy-fifth anniversary of Alexander Graham Bell's telephone and the foundation decision of constitutional regulation of public utilities in the United States, marked by Munn **v.** Illinois, decided by the U. S. Supreme Court in 1877. Here is an informative, delightfully, entertaining, and somewhat nostalgic review by Colonel H. S. Bennion, vice president and managing director of the Edison Electric Institute.

H. LESTER HOOKER—SIXTY MINUTEMAN

The Virginia commission is a little more than double the age of PUBLIC UTILITIES FORTNIGHTLY. It has been in existence since 1903 and has grown in strength, power, and jurisdiction in the old commonwealth state over the half-century of its existence. The head of this commission, and a member for the past twenty-nine years, is H. Lester Hooker, probably the dean of state commissioners in the United States. He is well qualified by experience and reputation to comment on the developments in regulation over recent decades and what they mean from the standpoint of a working commissioner. His views are expressed in a personal interview arranged for this issue through one of the commonwealth's leading journalists, James J. Kilpatrick, editor. **The Richmond News Leader.**

SHOULD THERE BE RULES ABOUT ESCALATOR CLAUSES?

During the recent inflationary years there has been a noticeable trend towards the adoption of escalator clauses as hedges in utility rate making. Philip P. Ardery, of the Louisville bar, who competently represents consumer interests, gives his views on rules which should prevail in permitting utilities to adopt escalator clauses. He feels that indiscriminate or excessive use of what should be a protective device, and not designed for raising revenue in itself, can be self-defeating under some circumstances.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

Remarkable Remarks

"There never was in the world two opinions alike."
—Montaigne

W. Randolph Burgess
Deputy to the Secretary of the Treasury.

"Honest money is the foundation rock in the American tradition."

Clifford F. Hood
President, United States Steel Corporation.

"There can be no advancing scale of living for the multitudes without general achievement of the going concern."

Richavsol Bowditch
President, Chamber of Commerce of the United States.

"It is highly important that we quit using tax dollars to subsidize competition for the private investor and private wage earner."

Douglas McKay
Secretary of the Interior.

"These people [midwest rural electric customers] have been agitated by certain people going around and holding meetings and telling . . . stories."

William E. Wood
Executive vice president, Virginia Electric & Power Company.

"Free enterprise can be promoted effectively only when the public has confidence in it, but first you have to win the confidence of your employees."

W. L. McGrath
President, Williamson Heater Company.

"No company can have an all-star cast of leaders. There must be room for the painstaking workers, the people who do the job assigned to them and who do it well."

Herbert Hoover
Former President of the United States.

"Every constructive move in government is always protested by a few, but I am sure the majority of our citizens will heartily approve of your reorganization [of the Agriculture Department] as a contribution to good government."

Excerpt from the New England Letter, published by The First National Bank of Boston.

"To be effective, the campaign for the restoration of self-government at the state and local level must have support from the grass roots. Otherwise, it will be of no avail. The task of regaining sovereign power at the state and local level will entail trying adjustments. But the struggle and sacrifice will be worth while, as the alternative to the 'rule by law' under a government by the people is the rule of tyranny by the few under a totalitarian régime."

MERRYLE S. RUKEYSER
Columnist.

"As business becomes more and more complex and more far-flung, there is growing recognition on the top management level that it is important to keep the avenues of information and ideas open."

THEODORE HARITON
Industrial division, Psychological Corporation of New York City.

"Employee-mindedness on the part of supervisors rather than complete concentration on production, pays off. It's the old story of understanding human nature and of making practical use of that understanding."

REVEREND EDWARD A. KELLER
Economist, University of Notre Dame.

"Better productivity works toward lower costs while higher wages generally mean higher costs and higher prices. . . . There is nothing in our present economic picture which should bring about a recession, except fear."

Statement by the House of Bishops, Protestant Episcopal Church of the United States.

"The greatest avowed enemy of Christianity is Communism with its basic philosophy of materialism. Closely allied to this foe of Christianity is another form of totalitarianism which defied the state, expressing itself in various forms of state socialism."

SINCLAIR WEEKS
Secretary of Commerce.

"The laws that Congress has passed for the regulation of the railroads, interstate power, gas transmission, and communications, all are intended to keep those industries healthy and vigorous so that they can render the best service possible to the public at as low a cost as possible in the long run."

JOSEPH PURSGLOVE, JR.
Vice president, research and development, Pittsburgh Consolidation Coal Company.

"The coal industry is a study in paradoxes. For example: We hear it said that the industry is dead, or that its sickness will lead to its early end. Yet, if coal production were to cease for a period of ninety days, great cities all over the U.S.A. and Canada would be browned out, maybe left in total darkness with no industries operating, no water flowing in the pipes."

FRANK CHODOROV
Writing in "Human Events."

"We of the normal frame of mind get ourselves into a dither simply because we do not make allowance for that attitude. We expect a government-owned enterprise—like the TVA or the Post Office—to be run efficiently, meaning without a deficit; but efficiency in a public business is not reflected in any profit and loss statement; it shows up at the polls. We apply economic theories from the market place to government operations; but the only 'sound' economics a politician knows about are those that help the 'ins' stay in power. A producing citizen knows that living beyond one's income is an act of bankruptcy; the government, which has a monopoly of manufacturing money, cannot go bankrupt, and is therefore untroubled by deficit financing. The voter thinks he votes for a principle or a policy; the politicians know better."

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AKBAR

Rolling Fire Doors Made Only By KINNEAR

Protection afforded by Akbar Doors is illustrated by these photos showing opposite sides of the same Akbar Door. Note the complete destruction on one side of fire wall, while the room on the opposite side remains completely intact.

MORE SAFETY FEATURES

Kinnear Akbar Fire Doors provide fast, positive fire protection at doorways and other wall openings.

Doors are automatically pushed downward when fire threatens. A strong spring provides positive action. Downward speed is controlled to insure safety for building occupants . . . and the doors can be opened easily for emergency exits. They automatically close again at once.

Another Akbar safety feature stops the door at sill level, even if the floor is burned away. A special locking device prevents the curtain from coming off the spool.

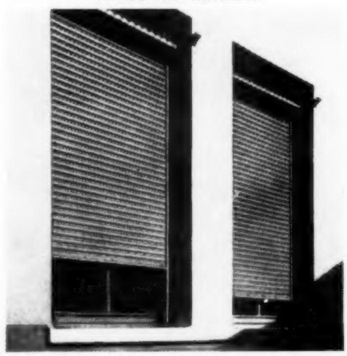
When not in use, Akbar Doors coil out of the way over the lintel. Approved and labeled by Underwriters' Laboratories, Akbar Doors can save as much as one third of their cost per year in reduced insurance rates!

Each Akbar Door is engineered for the specific opening, insuring the ultimate in closure.

Akbar Fire Doors can be equipped for daily use with motor or manual operation if desired. Where maximum fire protection is not required, non-labeled Kinnear Rolling Doors are recommended.

LARGE SIZES: Kinnear makes doors for firewall openings ranging up to many hundred square feet in area. These large doors are built with the same safety and protective features offered in the labeled doors described above.

Write for details!



Saving Ways in Doorways

KINNEAR ROLLING DOORS

The KINNEAR Manufacturing Co.

Factories:

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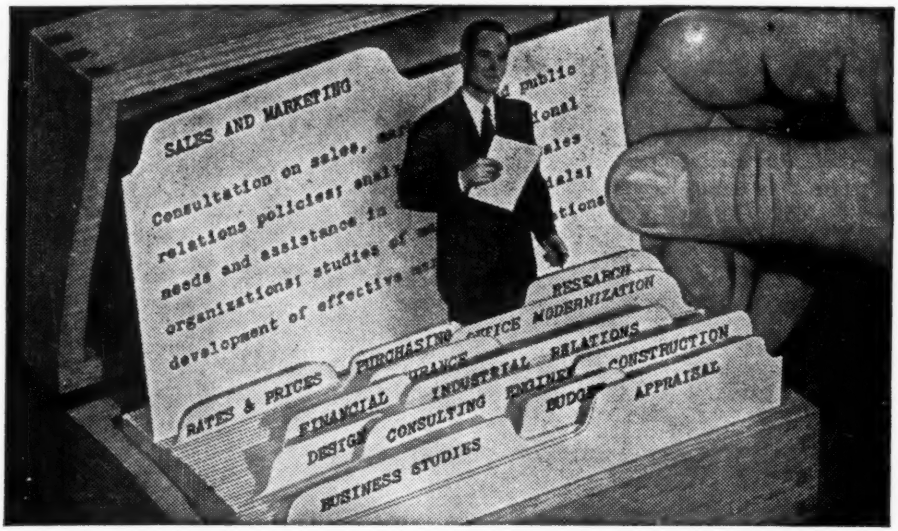

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Utilities Almanack

DECEMBER

17	Th	¶ *Edison Electric Institute, Industrial Relations Committee, begins meeting, New York, N. Y., 1953.*
18	F	¶ *Edison Electric Institute, Commercial Electrical Space Heating and Air Conditioning Committee, ends 2-day meeting, Canton, Ohio, 1953.*
19	Sa	¶ *National Rural Electric Co-operative Association will hold annual convention, Miami, Fla., Jan. 11–14, 1954.*
20	S	¶ *New England Gas Association, Operating Division, will hold meeting, Boston, Mass., Jan. 14, 1954.*
21	M	¶ *National Housewares and Home Appliance Exhibits will be held, Chicago, Ill., Jan. 14–21, 1954.*
22	Tu	¶ *National Association of Home Builders Convention and Exposition will be held, Chicago, Ill., Jan. 17–21, 1954.*
23	W	¶ *American Institute of Electrical Engineers will hold winter general meeting, New York, N. Y., Jan. 18–22, 1954.*
24	Th	¶ *American Gas Association will hold home service workshop, Columbus, Ohio, Jan. 18–20, 1954.*
25	F	¶ *Merry Christmas, 1953!*
26	Sa	¶ *National Industrial Electric Heating Conference, Industrial Electrification Council, will be held, Cincinnati, Ohio, Jan. 18–22, 1954.*
27	S	¶ *American Water Works Association, New York Section, will hold winter luncheon meeting, New York, N. Y., Jan. 19, 1954.*
28	M	¶ *Missouri Valley Electric Association will hold industrial and commercial sales conference, Kansas City, Mo., Feb. 4, 5, 1954.*
29	Tu	¶ *Electrical Equipment Representatives Association will hold winter annual meeting, Los Angeles, Cal., Feb. 8–11, 1954.*
30	W	¶ *American Water Works Association Indiana Section, will hold annual meeting, Feb. 10–12, 1954.*

Photograph by Harold M. Lambert

A Happy Christmas Morning to All—Young and Old!

Public Utilities
FORTNIGHTLY

VOL. LII, No. 13 DECEMBER 17, 1953

Beating New England Weather

New England weather is no joke to the public utilities in the area confronted with the task of maintaining service in the teeth of sudden howling blizzards and even occasional hurricane weather. But the utilities in Connecticut have a plan that has stood the test of years of experience.

BY THOMAS E. J. KEENA*

NEW ENGLAND weather has been the butt of many jokes. Charles Dudley Warner is believed to be the author of the crack that everyone talks about it but no one does anything about it. Mark Twain said there were hundreds of varieties—all bad.

But New England weather is no joke to the Connecticut public utilities. It is a foe, an adversary that strikes hard and often and in the most unexpected ways. All the utilities can do is be ready and wait. Most times, they win the fight hands down and no one even thinks of what might have happened.

THERE are other times, though, too. Then the utilities must grit their teeth and work hard. The linemen put in long hours, going days and nights without sleep. They do so according to plan—a plan that has been worked out through years of experience. It's a plan that works.

That plan was called into operation in Connecticut last January. An ice-glaze storm of serious proportions struck the lower tip of the state, developing into three days of misery. By the third day, all the electric utilities

*Member, editorial staff, *The Hartford Courant*, Hartford, Connecticut. For additional personal note, see "Pages with the Editors."

and telephone companies operating in Connecticut had incurred damage up to disaster proportions as a result of wires being broken by fallen trees and tree limbs.

In the experience of officials, it was the worst storm damage in that area since the hurricane of fifteen years before, in 1938. A total of 163,969 electric and telephone services were affected. The disaster brought into play a plan for mutual assistance between the power companies and the Southern New England Telephone Company. In all, some 3,212 employees of eight utilities worked on damage caused by the storm. They came from all parts of Connecticut and from across the state line in New York. As a result, approximately 87 per cent of all electric and telephone services that had been disabled were restored by midnight of the day following the end of the storm. Complete restoration was done within a week.

But Fairfield county, where damage was most highly concentrated, is the seventh richest area in the nation in family income. The city of Stamford is the second richest community in the country in terms of family income, with an average of $8,282 per family. A good selling job over the years has made this area sharply dependent on electric power. The storm loss hit hard at hundreds of all-electric homes.

For them, the storm meant no heating, eating, or lighting, as well as no communications. The very importance of electric current in their lives made the storm's impact all the greater. Not only among the wealthy suburban estates, but in new residential developments, where the cheapness of electricity had made it the indispensable factor of a new home, the storm was felt.

As a result, a serious problem in customer relations mushroomed. Ways were improvised to meet the needs of the moment. And with the end of the storm, complaints brought an official inquiry by the public utilities commission of the state. Probing questions and the willingness of utility witnesses to discuss their programs frankly put on the record information that can be useful across the nation. And it proved to the public that the utilities are doing a good and progressive job.

At least three times since 1938, Connecticut has undergone severe storms of hurricane intensity. The coastal areas, in particular, are subject to ice glazing as well. Overloaded trees, toppling down on power or phone wires, cause a lot of service interruptions. About 95 per cent of the January storm damage was caused by falling trees or limbs. To questioners, it seemed that encasing more lines in underground circuits might be the answer.

The utilities pointed out the expense of installing underground cable. They convinced the commission that it wasn't a cure-all answer. They outlined their work with aerial cable, which would also reduce the effects of an ice-glaze storm. As a result of the hearings, a committee has been named to make a thorough study of the possibilities of developing the use of aerial cable.

As for community relations, the utilities recognized fully the gravity of their situation. The storm damage provoked public pressure for under-

ground installation of cable and drew some powerful attacks on individual utility franchises. The effect has been to prompt some serious thinking on public relations.

ANOTHER question raised by the commission was the adequacy of weather forecasting services and the preparations for disaster. This was the picture described for the board:

From information supplied by both government and private meteorological services, Connecticut had adequate warning of the storm's approach. On Thursday, January 8th, forecasts advised the utilities that an ice and sleet storm of serious intensity was approaching and would probably strike that night. About midnight, a mixture of snow, sleet, and freezing rain began falling intermittently on Fairfield county.

On the highways, slush collected and state police imposed a 25-mile-per-hour speed limit. Stiff winds, with gusts up to 35 miles per hour were recorded. School classes were canceled. A string of skidding accidents was reported, despite the efforts of some 1,200 highway employees out trying to clear roads.

Ice was forming on the trees, bending and breaking off limbs. In the morning of Friday, January 9th, the utilities began to experience sharp difficulties. Greenwich, Norwalk, and Westport were hard hit, with troubles continuing to pile up during the day. By 7 P.M., Westport, Wilton, and Weston were completely without electric power. Stratford and Milford were in serious trouble.

Norwalk, reportedly without 90 per cent of its electric power, declared an emergency.

Throughout the state, power superintendents who had been handling individual trouble spots began to organize for the long pull. Men on call for off-duty emergencies were alerted. Disaster plans dictated by experience began to unfold. At the general offices of the Connecticut Light & Power Company in Berlin, near Hartford, executives of that company kept an eye on the developing problems.

THE CL&P disaster plans are dictated by the size and nature of the service given in eight areas covered by the company's five subdivisions, two independent divisions, and a subsidiary company. Each area is set up as an independent working area, headed by a manager. Each has its own regular maintenance staff. Under the disaster plan, district forces, such as the office, meter, sales, and customer service personnel, are integrated to expand the operating force. They have emergency stand-by communications lines that are also put into use, including an area-fixed radio station to communicate

". . . New England weather is no joke to the Connecticut public utilities. It is a foe, an adversary that strikes hard and often and in the most unexpected ways. All the utilities can do is be ready and wait. Most times, they win the fight hands down and no one even thinks of what might have happened."

with mobile two-way sets in the repair vehicles.

If the nature of the disaster exceeds the capacity of the local maintenance force, the area head reports to Berlin. There assistance is scheduled and dispatched. The central load dispatching office at the same headquarters, attended twenty-four hours a day, directs the loading of power stations, the switching and loading of the transmission system, and the gathering of information on the conditions of major power plants and substations. Near by is the superintendent of transmission and distribution, whose office co-ordinates the scheduling of men, materials, and equipment with the help of central personnel records, supply inventories, and a description of equipment available in all areas.

In Bridgeport on Friday night, the United Illuminating Company gathered its working crews together for an all-out assault on the lines the following morning. Two crews stayed in action all that night, clearing away high-tension wires that had fallen. Police had more than 100 calls complaining of trees down, many of them carrying wires with them.

Another serious threat developed in the beleaguered city. Seven fire alarm circuits were knocked out, cutting off more than 140 alarm boxes. Radio broadcasts were made, telling citizens to report fires by telephone, although 1,500 to 2,000 phones were also out of commission. Within six and a half hours, police lists of complaints had grown to 160 in Bridgeport alone.

FRIDAY night is shopping night in Norwalk. With the city's street lights knocked out in the 90 per cent blackout, the city's merchants substituted candles in their windows and continued from 7 to 8 o'clock, when central cables in the downtown area were back in commission.

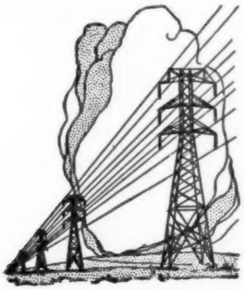
In Stratford, the postmaster canceled mail deliveries for the following day, explaining that the lack of light and heat prevented sorting and preparing the mail. In Bridgeport, the police were without radio and teletype service while fire headquarters was using emergency civil defense power.

The effect would not be fully evident until Sunday of what the PUC has called the most serious ice and sleet storm ever to strike Connecticut. By then, the hotels in downtown Bridgeport would be jammed with refugees from stricken areas. Families that had remained at home were cooking hamburgers in open fireplaces.

TO the Associated Press, the storm had produced a throwback to 1900. A church organ had to be pumped by hand. A butcher reported his meat sales were off, because there was "no way to cook it." Candles replaced electricity. Perishables went out into the hall, to keep cold there. The storm was a reminder "how things have changed in fifty years."

It was a challenge to ingenuity, too. Hardware stores sold out their meager supplies of candles and sterno. Dry ice was in demand to keep freezers going and food supplies fresh. Those who still had some power supply available were looking for power saws to clear away fallen limbs and trees on their property.

The newspapers and the utilities co-operated to spread information on how



A Combination Emergency Crew

"IN all, the six power companies affected by the storm used a total of 867 men of their own staffs, plus 591 on contract, in repairing the damage. To this total of 1,458 electric men must be added the 1,631 Southern New England Telephone Company repairmen, 58 hired on contract by the latter, and 65 from the New York Telephone Company. They had a mammoth job on their hands. A total of 134,797 electric services and 29,172 telephone services had been knocked out."

to offset the loss of power and to warn of dangers involved. Residents were told to be sure their fireplace fires and candles were extinguished before they went to bed.

But not everyone was fortunate. A candle set fire to one woman's hair. An emergency generator built up fumes that overcame a couple who had to be saved from asphyxiation by a resuscitator. At least two other cases of asphyxiation were reported.

INCONVENIENCES went further. Electric thermostats failed on automatic heating units, and instructions had to be published on how to use manual controls. The Red Cross cooked ten gallons of beef stew for occupants of a housing development who had no cooking facilities. Another Red Cross chapter brought portable heaters to the homes of ailing persons.

In Stamford, the Connecticut Power Company got an urgent call to restore power to an iron lung and completed the job within twenty minutes. In Greenwich Hospital, a surgeon had to use battery-powered lights to complete an operation when the hospital's two special generators failed, as well as the regular supply.

As for television, well, not only the electric current was giving it trouble but the ice glaze and falling tree limbs were playing havoc with aerials.

Meanwhile, the utilities were in full gear to meet the complaints. From other parts of the state, where damage had been light, co-operating companies furnished assistance under the informal mutual aid plan. Crews consisting of telephone men and electric

men were on the job patrolling lines, looking for and fixing breaks. The *Bridgeport Post* reported to the public on Sunday morning full details of how the United Illuminating Company in its area was coping with the disaster.

On Saturday morning, with the trouble already classified as extraordinary damage, over 100 United Illuminating men and corresponding telephone personnel started on emergency patrol of the lines in the Bridgeport area.

This program had been devised in the mutual assistance plan of the telephone company and electric companies eight years earlier, a plan reviewed and revised annually. The territories had been divided into small areas to facilitate covering them promptly and reporting difficulties easily to the participating utilities.

AT the same time, calls and complaints were coming into the companies' switchboards. The United Illuminating alone estimated that it was getting 200 calls an hour on Saturday. As the trouble increased, emergency telephone boards and then emergency positions on the telephone company's boards were brought into use. More than 150 UI employees spelled each other around the clock, answering the calls. Emergency facilities had been installed twelve years before against just such a contingency.

By Saturday night, even before the ice stopped forming, 29 crews were out on the UI lines alone, with 111 men among them. In addition, another 37 crews with 204 men borrowed from other utilities outside the disaster area or on contract were also out on the UI lines. On Saturday and Sunday extra men arrived to supplement this work.

In all, the six power companies affected by the storm used a total of 867 men of their own staffs, plus 591 on contract, in repairing the damage. To this total of 1,458 electric men must be added the 1,631 Southern New England Telephone Company repairmen, 58 hired on contract by the latter, and 65 from the New York Telephone Company.

They had a mammoth job on their hands. A total of 134,797 electric services and 29,172 telephone services had been knocked out. At control points, management, engineering, and maintenance personnel examined reports from the line crews and planned the counterattacks. Public health and safety had first priority in the restoration of service, including hospitals, public water supply, nursing homes, fire and police departments. Similarly, repairs were made first where large groups of customers could be connected in the shortest time. Street lights were left until service was restored to other customers.

YET the utilities' problems seemed to compound. The ice glaze and highway conditions slowed repair crews. Hotel operators, burdened with displaced home owners, found difficulty in getting rooms for repair and maintenance personnel drawn from a distance to help in restoring service. Providing adequate supervision for crews new in the territory was a problem.

But in these disastrous conditions, co-operation was forthcoming on every side. Municipal and state authorities helped clear streets and power lines. Suppliers found everything from food to raincoats needed for the extra

men. And the men gave everything they had.

Russell G. Warner, vice president of the United Illuminating Company, testified before the PUC:

> The hours the men worked were exhausting. In general, they started at daylight and continued through until about midnight, then at it again at daylight. Keeping up these hours day after day on work that requires extreme alertness for safety is a tribute to their zeal and training. We were fortunate not to have any major accidents.

With all this effort, and with added administrative personnel working around the clock to meet office demands, there was that vexing problem of customer relations. Everyone who could get through to the companies was demanding immediate restoration of power or telephones.

THE major difficulty in handling the customers came in telling when their service would be restored, or how long they might have to wait. Later, customers were to assert that they had been misled, or to complain that they couldn't find out anything at all. But the answer was simple.

"Unfortunately, it is almost impossible to estimate the time for restoration of service," Mr. Warner told the commission. "Breaks which affect the service to a particular customer may be scattered over two, three, or more miles. A few customers off from the main feeder might be skipped because of time required for tree removal."

But, he emphasized, the company tried not to give out any information if it did not know for certain. Although his company's crews were in close contact with the central office by two-way radio, many contract crews were out of touch. In consequence, customers had to be answered with courtesy, but few assurances. That was the rule despite the unanimous feeling that such information as can be given makes the customers confident that work is proceeding and that the companies are hard at work.

Some utilities found that human nature can be ornery on this problem. One tried to explain just where its repair crews were, to give some hint of its progress. It dropped that practice when it found that customers, once informed of the location of crews, were leaving their homes to find them and try to persuade them to drop everything to give them immediate attention.

ONCE the storm was ended, restoration proceeded rapidly. By Monday night, January 12th, about 90 per cent of the power failures had been

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corrected. It took four more days to clear up breaks scattered over large territories. Part of the reason was the trouble it took to clear away fallen trees that a survey determined were responsible for 90 to 98 per cent of the breakages. Best estimates put about 95 per cent of the blame on the ice-laden branches.

And once the storm was ended, the investigators moved in. Within twenty-four hours, two aldermen were on record in one city demanding that all cable be installed underground. The public utilities commission collected what data it could on the spot concerning the storm, while Governor John Davis Lodge ordered a public hearing on its effects. The hearing lasted two days and opened in Bridgeport on March 9th.

Eugene S. Loughlin, chairman of the Connecticut commission, presided. Seated with him were Commissioners Henry B. Strong and Frederick H. Holbrook. They dug deeply into the history of the storm, how well the companies had been prepared for the onslaught, and what had happened. From the first there was agreement that the trees were the principal culprit.

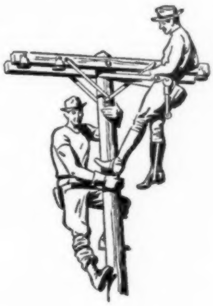
Russell Hicock of the Connecticut Light & Power Company estimated that 98 per cent of the outages on his company's lines, in the distribution system, had been caused by ice-laden branches coming down across the conductors and causing either a physical breakdown due to weight or a burn-down of conductors.

"Reports from the field indicate that trouble began when ice formation on trees reached a thickness in the neighborhood of one-half inch and continued to develop in severity as this formation built up, in some cases, to one inch in thickness," Mr. Hicock said. He is CL&P's superintendent of transmission and distribution. "Ice formation on the wires in the heavily damaged areas built up from one-half inch to five-eighths inch in radius. In general, breaks and burn-downs occurred in primary conductors of No. 6 and No. 4 copper. Failures of No. 2 copper conductors were noticeably less and little difficulty was experienced with conductors 2/0 and larger."

What could be done to offset this tree damage, each utility witness was asked by the commission. For one thing, the utilities said, more effective trimming ought to be practiced on shade trees, beside which distribution lines run. Disease-weakened trees, which proved to be a major source of trouble in the storm, ought to be cleared out, as well as tall, weak trees that occupy fence line locations.

Joseph Dietrich, Greenwich parks superintendent and president of the Connecticut Tree Protective Association, concurred in the utilities' complaints at the hearing. He urged that an ordinance is needed, however, to allow authorities to regulate planting of trees along all streets and highways.

With everyone agreed that some control ought to be exercised over tree planting, this was one of the first areas to see work after the hearings. The Agricultural Extension Service of the University of Connecticut published a pamphlet (Folder No. 68) on "Street Trees for Connecti-



Storm Survival Rate of Aerial Cable

"CONNECTICUT'S *electric utilities use aerial cable now. In some cases it has been successful and in other cases not. Of different types used by one concern, some is being removed and replaced after only five years of use. Coupling of cable to steel messenger wire makes the lines stronger, but when trees are crashing down and carrying poles with them, aerial cable isn't any surer of survival than ordinary wires."*

cut." This has been distributed by the telephone company and the utilities to stimulate thinking among public authorities on the question.

In New Haven, the park commissioner has announced a revised policy of street tree development. In another community, a garden club-sponsored street tree planting program was completely redesigned after the Connecticut Forest and Park Association and the local utility brought the problem to the club's attention.

Considerable attention turned at the hearings on underground cable and aerial cable as a way to avoid the serious effects that had been recorded. Witnesses who were critical of the utilities were convinced that damage would have been much less if more facilities had been underground.

This, the utilities conceded, was probable. But they pointed out that other factors must be considered. One is comparative economics. The widespread use of electricity has developed through the maintenance of low costs to the consumer. Recent suburban growth has extended into areas which dictated overhead electric service rather than the extension of underground lines.

THESE overhead distribution lines are built with sufficient strength to withstand all probable weather conditions. This strength is equal to, and, in most cases, greater than that specified by the National Electrical Safety Code for heavily loaded areas. That code, incidentally, was developed largely according to a pattern devised

by the Connecticut Public Utilities Commission in seeking good safety practices.

This type of construction permits high continuity of service. Connections can be made while the lines are alive. Extensions can be made without interrupting service, while transformers can be added or changed without such interruption. A suggestion that circuits be looped, connected to power at both ends, to provide more continuity of service was criticized by the utilities as feasible only under limited circumstances. Experience has shown, they said, that the time spent in observing necessary safety precautions, blocking of feeder voltage regulators, and performance of required switching that no substantial gain is made in protecting the customer from outages. A storm like the January 9th disaster, causing multiple breaks, makes looped circuits ineffective.

As for cables in general, the companies listed problems of electrostatic stresses, waterproofing in order to prevent electrolysis corrosion, difficulty in locating faults, and the longer time needed to make repairs. But there were other reasons to consider the expansion of cable service with a serious eye.

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Coupling of cable to steel messenger wire makes the lines stronger, but when trees are crashing down and carrying poles with them, aerial cable isn't any surer of survival than ordinary wires.

Most of the aerial cable presently installed is used for point-to-point transmission of high voltage without taps. This allows shielded cables and pot heads at the terminals. For distribution service, however, it ought to be capable of being handled while alive. This would allow extending service, making taps, changing transformers, and the like without deenergizing the lines. Up to now, many cable types do not permit this.

The commission noted that one type of cable was promising along these lines. This was a reverse lay cable of three insulated wires bound to a messenger wire. This, the commission pointed out, can be unwound to get separation of the conductors to permit taps. However, with increased use of electricity, circuits well above 5,000 volts are being planned for distribution systems in certain parts of the state and there does not seem to be a satisfactory cable yet developed for this work.

An ideal cable, one spokesman said, would be strong enough to bear the weight of considerable ice, to act as an express feeder in carrying high voltages in point-to-point service to substations, to act as a distribution line that can be tapped without deenergizing the circuit, or can be repaired and examined without cutting off customer service. The cost of such a cable, he estimated, ought to fall between that of open wire and underground.

IT was the cost, all parties agreed that made the underground solution unfeasible. In general, the com-

mission was told, putting service underground would cost between twenty-five and thirty-five times the present investment in overhead lines.

In exact figures, that would run into billions. Right now the investment of the four largest Connecticut electric utilities in underground conduit systems and cables is $24,000,000, representing 260 miles, while the present investment in overhead is $37,000,000, representing 11,000 miles of overhead wire lines. And the companies put the increase in rates necessary to meet this additional investment at 500 to 600 per cent.

So far, most Connecticut underground cable is in the center of its cities. The Hartford Electric Light Company has nearly half the state's underground conduit bank, or approximately 130 miles. It represents about 25 per cent of the street mileage in the capital. On about 50-odd miles in the city there is parallel overhead local secondary and immediate house distribution, in addition to 50-odd miles entirely overhead. In all, more than 750 miles of lines are overhead.

But Hartford twice underwent floods in the late thirties that affected the underground systems sharply. Most of the damage was at terminals, but during the flood, the plant failures could not, in many cases, be reached. And for two years after the last flood subsided, the company continued to experience delayed faults it attributes to flood after effects.

Harry Williams, superintendent of distribution, testified:

> We have had more service interruptions measured in kilovolt ampere hours with the underground plant, due to all reasons, than we have had with the entire overhead system.

HARTFORD installed most of its underground cable as the upshot of a municipal policy. A gentleman's agreement between the Hartford Electric Light Company and the city's superintendent of streets arranged for the putting of a certain mileage of distribution plant underground each year. In the late thirties, however, public pressure mounted against further underground construction.

As a result, for some ten or twelve years the company has confined itself to reinforcing underground ducts, replacing duct lines of the order of forty or fifty years ago with more modern lines. Excluding some factors of cost, Mr. Williams put the capitalized structures underground at a rate of $67,000 a mile.

Considering all factors of cost, however, the utilities were inclined to estimate the cost of modern under-

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ground construction in Connecticut closer to $100,000 a mile. They pointed out that the streets would have to be opened to install the group of conduits that are encased in concrete. Manholes must be built large enough for transformers and fuse cutouts as well as for the splicing of cables. Then there would have to be manholes or hand holes from which the customer service would radiate. After the conduit system was installed, the paving would have to be replaced. This type of construction interferes seriously with traffic, they noted.

Most companies have a policy in the state today of encouraging underground cable in downtown areas when new construction is required. But, on the outskirts of town, and in new residential developments, one reason why electricity is used so widely is the relatively low cost of connections from overhead wires. The cost of connection from an underground conduit was estimated at the hearing as in the area of several hundred dollars.

But installation doesn't solve underground problems, as the outage ratio indicates. As loads increase, too, cables must be changed. Splicing means cutting off service to customers long enough to do the job. Any fault means de-energizing part of the system once the fault is located, backing up service along the line to get at the fault. Then replacing a section of cable is no easy task.

The cost of maintenance and operation has been found in Connecticut's experience to be about twice, per circuit mile, of underground compared with overhead construction, where lines are usually worked alive. As for additional costs to municipalities, there is that of putting alarm and traffic control cables underground, the increased cost of street lighting, and the need of new standards or poles for such lights.

One program outlined to the commission which seemed to have had an effect in reducing storm damage was a long-range construction program of the Connecticut Power Company. Until 1943, the company's area was served almost exclusively by circuits emanating at distribution voltages from a central station or large substation. Since then, in each of the company's communities and in its areas, territory has been divided up and smaller substations of 1,500 kilovolt amperes to 3,000 kilovolt amperes in capacity built. These substations are served by subtransmission lines at 13 kilovolts or 22 kilovolts. As far as practicable, there are two feeds to every station.

During the January storm, the company's representative, Warren Lawrence, pointed out, except for several transmission interruptions, only one of which affected service to customers, there was power in every one of the substations. This, he said, tended to minimize the amount of work to be done and restricted the areas affected.

There was no arguing that the storm had wreaked extensive and expensive damage. The United Illuminating Company estimated that storm damage for it alone would come to $350,000 for materials, labor, and incidentals. Additional costs would derive from restoring lines to their regular standards. The loss of revenue was not figured. The Connecticut

Screening off Disaster Pressure

"THE CL&P disaster plans are dictated by the size and nature of the service given in eight areas covered by the company's five subdivisions, two independent divisions, and a subsidiary company. Each area is set up as an independent working area, headed by a manager. Each has its own regular maintenance staff. Under the disaster plan, district forces, such as the office, meter, sales, and customer service personnel, are integrated to expand the operating force."

Light & Power Company, which suffered the greatest number of outages, put its costs in the neighborhood of $200,000.

THE facts considered, the commission issued a 12-page finding and order on July 16th. The order recognized that any effort to cut down service interruptions such as those growing out of the storm means striking a balance between a high cost, uneconomic system on the one hand and an inadequate, if inexpensive one on the other.

It directed the companies to take action in ten fields. It ordered further organization for the central handling of emergencies, to gather weather data, keep lists of key utility personnel, and to act, in case of emergency, as a dispatching point of mutual aid, a fount of information on critical areas. It also directed that the companies, either individually or in a group, secure competent meteorological forecasting and analyzing services directed at advising them on weather data affecting their own work.

THE specific plan for such co-operation, including not only the companies, but municipal and other governmental agencies and civil defense officials, was to be filed with the commission.

Other points on which the commission sought action:

Trees: A joint committee will confer and propose a plan for tree trimming. Two years is given this group to reach a specific joint proposal for co-operative action.

Underground cable: Companies will review their plans for such installation and encourage as great a use "as is consistent with sound engineering and economic principles."

Aerial cable: A continuing study will be made, with annual reports to the commission on use and development. This may well be the first thoroughgoing practical analysis of such cable.

Other points in the order required a report on "sources of potential difficulty" in the systems and what steps have been taken to root them out; a check of ground and phase wires in transmission systems at the end of each lightning season to find and repair faults, as well as a review of design practices with respect to the sagging of ground wires and conductors under ice loads to eliminate as much as possible contact between them; a formalization of the eight-year-old working agreement between the utilities and the telephone company for mutual assistance; and the selection and training of personnel to inform the public on restoration of service.

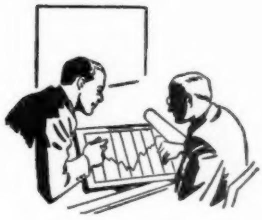
A LITTLE over one month later, on August 28th, the utilities answered the order. They have organized a Storm Emergency Committee, with Mr. Warner as chairman and the following utility companies represented:

The Bozrah Light & Power Company, the Clinton Electric Light & Power Company, the Connecticut Light & Power Company, the Connecticut Power Company, the Danbury & Bethel Gas & Electric Light Company, the Derby Gas & Electric Light Company, the Farmington River Power Company, the Hartford Electric Light Company, the Mystic Power Company, Ponemah Mills, the United Illuminating Company, the New York Telephone Company (which has two exchanges providing service across the state line to Greenwich), the Southern New England Telephone Company, and the Woodbury Telephone Company.

Only six of these power companies and two of the telephone companies were involved in the storm investigation, but all of them, confirming former verbal and informal agreements, have now filed lists of key personnel with the state utilities commission and pledged a mutual aid agreement that reads:

> That their companies will co-operate to assist each other as they have in the past and will render mutual aid to each other in the restoration of electric service to the fullest extent possible during emergencies and disasters of all kinds. It is understood that no company will be expected to place its own service in jeopardy to render such aid.

INCLUDED in the report was a working agreement reached with Connecticut's Director of Civil Defense, and point-by-point discussions of what has been done to meet the commission's requirements. More meetings have taken place since that report was submitted. Alert to the possibilities of better service, the companies are following up the lessons learned in the January storm. As another winter appears on the calendar, the companies are ready and waiting.



Utility Earnings and Business Recessions

This is an analysis of recent suggestions from a regulatory source about the possible impact of business recession on utility earnings.

By STUART W. JOHN*

One of the most successful and constructive dissertations on a subject of importance to the electric utility industry is an address delivered by Herbert J. Flagg, executive officer of the New Jersey Board of Public Utility Commissioners, at a recent meeting of the New York Society of Security Analysts, on the effect of business recessions on utility earnings. To judge by the number of words that have since appeared in the public press and in private correspondence, Major Flagg was eminently successful in achieving his objective, which was "to provoke some earnest thinking" on the relationship of rates to the vulnerability of utility earnings to business recessions.

This was only one of three topics covered in Major Flagg's paper. For the present, however, I will confine my comments to that one subject. Also, although referring specifically to the electric power industry, Major Flagg stated that his remarks were equally applicable to gas utilities and even, to some extent, to water utilities. The same is true of my own comments.

Major Flagg closed his address with an admission that he did not expect universal agreement with his conclusions from his listeners or from his colleagues in the field of regulation. Although finding myself in complete agreement with what I regard as Major Flagg's principal thesis, I feel that some of his most important assumptions and the conclusions he drew therefrom are not applicable to the electric utility industry as a whole.

By his "principal thesis," however, I do not mean his conclusion—that, on the whole, utility earnings are now substantially more vulnerable to business recessions than they were twenty years ago. Certainly I can agree that

* Manager, rate department, Commonwealth Services Inc. For additional personal note, see "Pages with the Editors."

there is great need for more and better information concerning the characteristics of the use that utility customers make of the service they purchase, and for more and better data and clearer understanding of the costs of rendering service—how such costs vary with changes in customer-use characteristics, with the general expansion of sales, and certainly how such costs are affected by business recessions. And I can agree heartily that intelligent rate design, adequately fortified with such knowledge of the fundamental economics of the business, can do much to alleviate the impact of recessions.

Major Flagg states that "It has been estimated that in 1930 the operating income of the electric power industry was about 65 per cent from stable sales and 35 per cent from vulnerable sales." My principal point of disagreement is with his subsequent assertion that "It is reasonable to assume that today the percentages are reversed and not less than 65 per cent of operating income is derived from vulnerable sales."

At the outset it should be stated that available data do not permit positive, quantitative proof or disproof of the validity of Major Flagg's assumption, but there appears to be substantial evidence opposed to it. Undoubtedly there are some companies whose earnings today are more vulnerable to a serious depression than they were twenty years ago, but I am convinced that in the great majority of cases such change as there may have been has been in the direction of greater stability of earnings, and that on the whole the industry is better able today to withstand a serious depression than it was in the early thirties.

It will be noted that Major Flagg did not refer to the volume of sales or revenues that are vulnerable but rather to the relative proportions of *operating income* that are derived from stable and from vulnerable sales. In order for him to assume that there has been a great increase in the proportion of operating income that is derived from vulnerable sales, it was necessary for him to have reached one or both of the following subsidiary conclusions; namely, (1) certain classes of energy sales that were "stable" in the earlier period have now become "vulnerable," or (2) because of changes in the relationships between rates and the cost of service, or for other reasons, the revenues from stable classes of business are making a much smaller contribution to operating income than they were in 1930.

In examining this subject in greater detail, it will probably be helpful to start with the subsidiary propositions named above and to consider the vulnerability of sales and revenues before proceeding to consideration of the vulnerability of operating income. Feeling that industry-wide data may tend to obscure many important factors affecting individual companies, I have examined data for 21 companies for the 1930-33 period and have drawn certain comparisons with conditions existing today. While the 21 companies studied are by no means represented as a statistically perfect sample, I believe they represent a reasonably good cross section of the industry. Geographically, they are scattered from Maine to California and from Washington to Florida. In size, they are large, medium, and small. Some

serve concentrated metropolitan areas and others serve smaller cities and rural areas. Some serve a large amount of industrial business and others almost none.

We find that in the 1930-33 period residential *kilowatt-hour* sales were highly stable—if "stable" is a proper word to apply to a class of business that, on the whole, not only did not decline but generally increased throughout the depression. According to statistical data of the Edison Electric Institute, residential kilowatt-hour sales for the industry as a whole never dropped below the 1930 level. In 1933 residential sales dipped one per cent below 1932 but were still approximately 7 per cent above 1930, while in 1934 they reached a new high level, 8 per cent above 1933. In our 21-company group there are only four companies whose residential kilowatt-hour sales declined from 1930 to 1933. Two of these showed decreases of only a half of one per cent or less and the maximum decrease for any one company was 6 per cent. The remaining 17 companies in the group—81 per cent of the total—showed increases in residential kilowatt-hour sales ranging from less than one per cent to 78 per cent.

Eleven of the companies showed increases of 10 per cent or more, while in six cases the increase was more than 20 per cent.

Although the *rate of increase* in sales unquestionably declined, residential customers in general continued to make increasing use of the service straight through the worst depression in our history. Although not subject to decreased patronage, the residential classification was adversely affected by rate reductions, with the result that 10 companies, or just under half of the group, showed decreases in residential revenue ranging from 1.6 to 12.9 per cent and averaging 5.8 per cent.

Six of the 10 companies showed decreases of less than 5 per cent. The remaining 11 companies in the group showed increases in residential revenue ranging from 1.6 to 25.1 per cent. In seven cases the increase exceeded 10 per cent.

Although most of the cases of decreases in residential revenue were the result of rate reductions rather than decreased sales, it appears improbable that demands for rate reductions were pressed to the point of endangering dividend payments, and we conclude that in the depression of the thirties, the earnings of the residential classification were, in general, highly stable.

If residential sales were highly stable in the early thirties, what can

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be said of the results that might be shown if we should ever again be visited by such a serious economic upheaval? Today, kilowatt-hour sales per residential customer are approximately four times as great as they were in 1930. Does that mean that customers would be under greater pressure to economize or that there would be greater possibilities for economizing? The answers to these questions are locked in the future. Let us hope they will never be answered; but it is my opinion that residential sales and revenues are every bit as stable now as they were in 1930. Although the use of service has expanded greatly, its cost—as a percentage of the family budget—is even less now than in 1930. Although a large amount of service is used for radio, television, and other not-too-essential purposes, these services represent one of the cheapest forms of entertainment. And the millions of refrigerators, ranges, water heaters, deepfreezers, automatic clothes washers and dryers, and countless other home appliances that have been sold since 1930 have greatly increased the dependence of the American household on electric service.

With reference to the gas industry, the great expansion in the use of gas for domestic space heating—at rates in line with, or below, the cost of competitive fuels—is another illustration of the increased dependence of the American household on utility service.

MOVING now to consideration of commercial and industrial sales, we are confronted by much less satisfactory statistical data than in the residential classification. There is considerable variation in the way individual companies classify these sales. Some companies follow a *use* classification — classifying stores, office buildings, hotels, and similar customers as commercial, and only such customers as those engaged in manufacturing, mining, etc., as industrial. Other companies follow a *size* classification—listing as "small light and power" all general service customers smaller than 10, 20, or 30 kilowatts (or some other limit), while those larger than this limit are classified as "large light and power," and still other utilities follow other classifications. True commercial and industrial customers respond quite differently to depression conditions, as is borne out by the records of the few utilities that follow the use classification. Commercial sales are almost as stable as residential, while industrial sales very naturally are highly sensitive to fluctuations in industrial production. Unfortunately for our present purpose, it is necessary to rely for most companies on the large and small light and power classifications. In general, it may be said that the small light and power class is predominantly commercial, although there appear to be some companies for which this is not the case.

IN considering the large light and power class there are many questions to ask if we are properly to judge its response to a recession. To judge the effect on the company's earnings we are first interested in what percentage of the total revenues and energy sales is represented by this class. In the group of 21 companies previously referred to, large light and power revenues ranged from 16 to 53 per cent, with 11 companies reporting less than

The Relative Risks of Varied Utilities

"THE *vulnerability of the earnings of individual companies is, in the last analysis, primarily dependent upon the economic nature of the communities they serve. Some companies' earnings are inherently more vulnerable to recessions than others—and this appears to be a neglected aspect of the determination of a proper rate of return. Certainly those companies having inherently greater vulnerability to recessions should be allowed a higher rate of return so as to permit continuity of established dividends even when operating income is substantially curtailed during a recession.*"

30 per cent in this classification. Next we should know how much of the total is commercial, how much industrial, and how much water pumping and other municipal services. Having determined how much of the large light and power class represents sales to industrial customers, we are concerned with what kind of industry it is, and the degree of diversification that exists. Different kinds of industries are affected to different extents by business recessions and, except for the more stable industries such as food processing, a predominance of one industry can be expected to be less stable than a well-diversified industrial load.

As a result of the many variables discussed above, the effect of the depression on the large light and power revenues of the 21 companies varied over wide limits. Decreases were shown by all companies but the decreases ranged from less than one-half of one per cent to 55 per cent. Three of the companies recorded decreases of less than 5 per cent and four lost more than 40 per cent. Twelve companies experienced losses of less than 20 per cent.

THE experience of the 21 companies from 1930 to 1933 shows a fair degree of correlation between the per cent decrease in large light and power revenues and the per cent decrease in total operating income. An eye-fitted line of regression runs approximately from zero change in total operating income for zero decrease in large light and power revenue to 30 per cent decrease in total operating income for a 56 per cent decrease in large light and power revenue.

There are a few fairly large deviations from this line, most of which

are readily explained—those showing less decrease in operating income than indicated by the line of regression were affected by one or more of the following factors: (1) large light and power a small percentage of total revenue, (2) a fairly substantial increase in residential revenue, or (3) a substantial increase in sales to other utilities. Those showing substantially greater decreases in operating income than indicated by the line of regression were affected by extraordinary decreases in small light and power revenues, sales to other utilities, or to street railways. Two companies, experiencing decreases on the order of 20 per cent in small light and power revenues, indicated greater average kilowatt-hour sales per customer than the other companies and presumably included larger industrial customers in that category than the other companies.

SALES to other utilities showed the greatest variation of any class in the 1930-33 period. In five cases there were increases in revenue—ranging from 9 to over 150 per cent and averaging 55 per cent. In the other 16 cases there were decreases in revenue ranging from 6.6 to 73.6 per cent. Four companies experienced decreases of less than 20 per cent but for 11, the decrease was more than 30 per cent and four companies lost more than 50 per cent of their revenues from sales to other utilities. The significance of these fluctuations varies from almost nothing, where such revenues are a very small percentage of the total, to a very important item where they are a large percentage of total revenue. For example, one company experienced a 40 per cent decrease in sales to other utilities but such sales represented only one-tenth of one per cent of total revenue and the effect on total operating income was obviously negligible.

In another case, however, a company deriving 43 per cent of its total revenue from sales to other utilities experienced a 37 per cent decrease in this class with a very pronounced effect on operating income. In cases where sales to other utilities showed substantial increases there were corresponding beneficial effects on operating income.

THE causes of wide fluctuations in sales to other utilities are not difficult to imagine. The very large decreases quite probably were cases in which one utility was selling to another which was generating a fair share of its own requirements. When the purchasing utility's sales fell off, it continued its own generation and curtailed its purchases. Substantial increases in sales to other utilities were very probably much the same as in the previous case except that the purchasing utility found it cheaper to buy than to continue its own generation, with the further probability that the selling utility had been unable to supply the service prior to a decline in its sales to its own ultimate consumers, or that anticipated increased sales failed to materialize.

Although not always feasible—depending upon the circumstances surrounding the individual case—it is often possible to minimize the effect on operating income of radical decreases in sales to other utilities through appropriate contract provisions. For example, one utility which lost over 91 per cent of its energy sales

to other utilities, lost only 73 per cent of the revenue. In another case, however, a company lost only 43 per cent of the energy sales but 54 per cent of the revenue.

So far, we have examined only the first of the subsidiary assumptions that Major Flagg might have made—that certain classes of energy sales that were highly stable in the depression of the thirties have become much less stable. By way of summary it may be said that I reject this as a general proposition and believe, on the contrary, that residential sales, which were highly stable in the thirties, are fully as stable today; that the same applies to commercial which, though slightly less stable than residential, is fully as stable today as in 1930; that industrial sales in 1930 fluctuated with industrial production and will continue to do so in the future—but to no greater extent than in 1930; and that energy sales to other utilities which fluctuated radically after 1930, will probably continue to do so in the future, although the effect on operating income of such fluctuations can, in many cases, be minimized through appropriate contract provisions.

We may now consider the second assumption that Major Flagg may have made—that, because of changes in the relationships between rates and the cost of service, or for other reasons, the revenues from the stable classes of business are making a much smaller contribution to operating income today than they were in 1930.

The only reason for the assumption stated above, other than alteration of the relationship of rates to the cost of service, would be that the so-called vulnerable sales have grown more rapidly than the stable sales—which appears not to be the case. Although slightly disturbed by a change in accounting classification in 1937, figures prepared by Edison Electric Institute indicate that residential revenue in 1951 was 3.3 times as great as it was in 1930 and that in 1951 it represented 38.4 per cent of total revenue from ultimate consumers as compared with only 33.3 per cent in 1930. The large light and power class, which showed a decrease of 17.3 per cent from 1930 to 1933, was only 2.8 times as great in 1951 as in 1930, and accounted for only 27.9 per cent of total revenue from ultimate consumers in 1951 in comparison with 28.4 per cent in 1930.

Revenues from the large light and power class, as a percentage of the total, show a similar decline for the 21-company group for 1951 compared with 1930. Whereas these companies reported large light and power sales ranging from 16 to 53 per cent of total revenue in 1930, the range for 1951

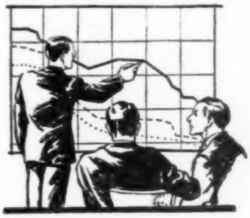
¶ "ALMOST *all costs other than production expense are proportional to the combined demand of all of the customers of the class or to the number of customers in the class. The latter—the so-called customer components of cost—are of particular importance in considering the residential class.*"

for the same companies was from 7 to 47.5 per cent, and while 11 companies reported less than 30 per cent of total revenue in this classification in 1930, there were 13 companies reporting less than 30 per cent in 1951. From these comparisons, it would appear that the more stable classes of business are growing somewhat more rapidly than the "vulnerable" classes.

In considering the relationship of rates to the cost of service, it may be well to begin with a brief review of some of the fundamental factors affecting the cost of service. True, it must be recognized that the cost of serving the various classes of business is not by any means proportional to the number of kilowatt hours sold. We are not badly in error if we assign production expense on a kilowatt-hour basis, but this is generally not the case with any other costs. For our present purpose there are two interesting facts regarding production expense: First, production expense is much greater, in relation to revenue, for the large light and power class than for residential—being about 45 per cent and 20 per cent, respectively, for the two classes. Second, notwithstanding the great improvement in the thermal efficiency of power plants, production expense per kilowatt hour is actually increasing. According to FPC data, production expense per kilowatt hour sold increased from 3.62 mills in 1937 (the earliest year for which such data are available) to 4.87 mills in 1951, or an increase of 34.5 per cent. The result of this increase, together with the decrease in average revenue per kilowatt hour, is that while production expense represented about 45 per cent of large light and power revenue in 1951, it amounted to only about 29 per cent in 1937. This means, of course, that after paying production expense, the portion of large light and power revenue available to meet other operating revenue deductions and to contribute to operating income was 71 per cent in 1937 and only 55 per cent in 1951. This is admittedly a crude measure of the contribution of this class of business to operating income but it appears to indicate a substantially decreased relative contribution by this "vulnerable" class—and, at the very least, the measure is not so crude as to prohibit a conclusion that the proportion of total operating income derived from the large light and power class was no greater in 1951 than it was in 1937.

Applying the same test to the 21-company group previously referred to, we find substantially the same result for 1930 compared with 1951. Only one company in the group had a greater margin between average rate and production expense in 1951 than in 1930. The other 20 companies all had smaller margins—the decreases ranging from 6.7 to 62.8 per cent. For 15 of the 21 companies the decrease was 20 per cent or more; for 12, the decrease was 30 per cent or more; and five of the 21 companies had less than half the margin they had in 1930.

Almost all costs other than production expense are proportional to the combined demand of all of the customers of the class or to the number of customers in the class. The latter—the so-called customer components of cost—are of particular im-



Stability As an Abnormal Phenomenon

"WE find that in the 1930-33 period residential KILOWATT-HOUR SALES *were highly stable—if 'stable' is a proper word to apply to a class of business that, on the whole, not only did not decline but generally increased throughout the depression. According to statistical data of the Edison Electric Institute, residential kilowatt-hour sales for the industry as a whole never dropped below the 1930 level."*

portance in considering the residential class. Although not as precise as we might determine for an individual company, we will not be greatly in error if we assume that the customer components of operating expense for the residential class are represented by distribution expense, customers' accounting expense, and sales promotion expense.

A change in accounting classification occurred between 1930 and 1951 but again we will not be greatly in error if we use the expenses listed above for 1951 and the following for 1930: distribution, utilization, new business, and commercial expenses. Assigning these expenses to the residential class on a per customer basis, and production expense on a per kilowatt-hour basis, and deducting the total from residential revenue, we find that the balance per customer, available to meet other operating revenue deductions and to contribute to operating income, was significantly greater in 1951 than in 1930.

Applying this test to the 21-company group, we find that only three companies had a smaller margin after meeting the expenses listed above in 1951 than in 1930, the decreases ranging from less than a half of one per cent to 11 per cent. The remaining 18 companies showed increased margins ranging from 3 per cent to 171 per cent. Fifteen companies showed increases of more than 25 per cent, for nine companies the increase was 50 per cent or more, and three showed increases of more than 100 per cent. Again our measure is crude, but if we discount the fact that it appears to show that the stable residential class made a greater relative contribution to operating income in 1951 than it did in 1930, we are at least justified in concluding that the relative contribution today is no less than it was in 1930.

To summarize, although the foregoing analysis appears to indicate that the stable sales contribute more and the vulnerable sales contribute less to operating income now than they did in 1930, we are at least justified in concluding that the reverse is not true. Having previously found that residential revenues are growing more rapidly than large light and power revenues, and having expressed the opinion that domestic sales are no less stable today than they were in 1930, I disagree with Major Flagg's conclusion that a greater proportion of operating income is now derived from vulnerable sales than in 1930, and I believe that utility earnings today are no more vulnerable to recessions than they were in 1930.

Although disagreeing with Major Flagg's conclusion in general, I agree, of course, that cases undoubtedly exist in which individual companies would suffer more today than they did in 1933 under similar depression conditions. And I agree with him that in those cases—and in others as well—it is quite probable that proper rate design could help materially to alleviate the effects of a business recession. However, although Major Flagg undoubtedly did not intend any such implication, it might be incorrectly inferred from his remarks that proper rate design could almost completely eliminate decreases in operating income during depressions. This of course is not the case, and it is undoubtedly true that overemphasis in rate design on attempting to limit the effects of recessions could have serious undesirable effects. Many other considerations must be given to the development of rate structures if the industry is to continue to grow and prosper and to render the greatest public service.

The vulnerability of the earnings of individual companies is, in the last analysis, primarily dependent upon the economic nature of the communities they serve. Some companies' earnings are inherently more vulnerable to recessions than others—and this appears to be a neglected aspect of the determination of a proper rate of return. Certainly those companies having inherently greater vulnerability to recessions should be allowed a higher rate of return so as to permit continuity of established dividends even when operating income is substantially curtailed during a recession. In this connection it is interesting to observe that in a group of 135 utilities, predominantly electric, 22, or 16 per cent of the group, retained less than 10 per cent of their gross income after common dividends in 1952; 26 retained from 10 to 15 per cent; 87, or 64.5 per cent of the group, retained more than 15 per cent; 58 retained more than 20 per cent; and 30 retained more than 25 per cent. Recalling our finding with respect to the 21-company group that eight companies, 38 per cent of the group, suffered declines of more than 20 per cent in operating income from 1930 to 1933 indicates the necessity of ample margins between earnings and dividends during prosperous times, and such margins should be greatest for those companies whose earnings are inherently most vulnerable to business recessions.

The Industrial Revolution In Dixie

What has been happening down South, industrially speaking, during the past few years? San Francisco's stock exchange members were given an opportunity to find out firsthand when the president of Middle South Utilities extended to them an invitation to see for themselves. Here is a brisk reporter's account of what was almost literally a bird's-eye view of improvements and expansion in the deep South.

By SIDNEY P. ALLEN*

YARNS about the resurgence of the "Old South" have floated around the country, even as far as the Pacific coast with its own multitude of growing pains. Those yarns, coupled with the bits of evidence such as the Middle South Utilities statistics, have piqued more than an idle curiosity.

So when Edgar H. Dixon, president of Middle South Utilities, extended an invitation, to view the holding company's operating properties, to the San Francisco Stock Exchange it sparked a quick affirmative response.

Middle South Utilities has just about trebled in size since the end of World War II.

Every security analyst has been aware of its tremendous growth surge. It is all told in cold statistics at regular intervals.

The company has been outstanding even in an industry of outstanding postwar development. Moreover it has done an excellent job of raising capital for its rise.

All that is a matter of record. It's there in black and white, and it has been read.

BUT the story behind that growth was something else again. Dixon's invitation offered the opportunity to explore it at firsthand.

It proved to be a remarkable, and in several ways a unique, educational experience for the forty-one California participants.

They saw what is making Middle

*Financial editor, the *San Francisco Chronicle*. For additional personal note, see "Pages with the Editors."

South Utilities tick, from its top management to its working team spirit, from its community pride and ambition to its promotional achievement, from its natural resources and enchanting antiquity to its friendly people with their new-found confidence.

DIXON, together with his vice president, Paul O. Canaday, and his assistant, Paul Hallingby, Jr., met the group in San Francisco. They accompanied it on a beautiful get-acquainted flight across California, over towering Mt. Whitney in the Sierra Nevada range, across Death Valley and the desert to Hoover dam, over Lake Mead to the Grand Canyon, over the Painted Desert to skirt the Rockies and the Ouachita Mountains, and down to land at Little Rock, Arkansas.

There at the airport to meet the group was R. E. Ritchie, president of Arkansas Power & Light Company, one of Middle South's four operating companies.

Ritchie and his associates, headed by Arkansas Power Board Chairman C. H. Moses, took over for the next two days and nights. They are eminently qualified "painters" of the Arkansas scene. As Ritchie painted it:

"WE just woke up a few years ago to our potentialities. We realize we have a late start and a long way to go, but we're on our way."

They told the story of the Arkansas Economic Council. It was born of a growing aversion to "backwardness" by a few men; it was carried to the communities and sparked an intensive period of self-appraisal; it was dedicated to the proposition that perhaps the people of the state could raise its economic level, if only they'd take hold.

They took hold. And they made some surprising findings. They found, for instance, that Arkansas' list of assets was better than good.

Along with a fair climate and an abundance of water for potential industrial development, the state has a rich agricultural belt, the embryo of a good livestock industry, a wood industry that contained real expansion prospects, most of this nation's bauxite deposits for aluminum production, a large part of its barite for oil drilling, an ample supply of natural gas, and a modicum of oil.

Additionally, it had a good nucleus of a labor supply. And it had lots of room.

MITCHIE and his associates showed off each of these assets. They showed them in a tightly scheduled two-day bus tour that put the group on the road by eight each morning.

Reason for the tight scheduling was not simply to cover ground. It was also because local experts were booked to come aboard and explain various activities or answer questions at every place on the route where there was occasion to pause or stop.

And it was also because both luncheon and dinner arrangements called for major stops and meetings with business, financial, and political leaders.

So the scheduling was punctiliously observed—in Mississippi and Louisiana, as well as in Arkansas.

So the bus ride from Little Rock to Bauxite and Benton, from Malvern

to Hot Springs, from Arkadelphia to Camden, was subject to frequent pauses. For Arkansas is beginning to exploit its assets, to give a real upward tug on its own boot straps.

For industrialization obviously is coming. It's coming in the form of big mining operations to feed the big and growing Aluminum Company of America and Reynolds Metals Company ore reduction plants. It's coming in the form of a large Reynolds aluminum production plant at Jones Mills. It's coming in the form of satellite fabrication plants springing up around the "seed" aluminum plants, like General Motors for auto parts and Utilex Corporation for plumbing parts.

But that's not all the first day's ride showed.

Industrialization also is coming in the form of new plants by a number of "name" companies: Westinghouse Electric's new electric glass factory, International Shoe Company's new shoe-lining factory to utilize the South's cotton, International Paper Company's big basic pulp plant, etc.

On the second day the bus paused at Magnolia, where oil begins to hint of the power of its economic impact.

It paused again at El Dorado, the headquarters of Arkansas' refinery and petro-chemical activities where growth is the watchword. It paused for lunch at Crossett, where virtually everything that can be done with wood is done and where the tree crop is harvested on a sustained yield basis. And here, as at Camden the night before and at Hot Springs the preceding noontime, Dixon and Ritchie called on the community leaders to help "paint" the local scene in some detail.

Toward evening of the second day the group crossed the Mississippi river and bused into Greenville, Mississippi. R. I. Brown, president of Mississippi Power & Light Company, promptly took Ritchie's place and began to set the tone.

The group was taken to the air. But the picture "painters" continued to work masterfully.

The plane's-eye view of the Mississippi's alluvial delta was a convincing argument that this historic region can be fabulously rich in production of a great many crops besides just cotton. And mechanization and

¶ "The *plane's-eye view of the Mississippi's alluvial delta was a convincing argument that this historic region can be fabulously rich in production of a great many crops besides just cotton. And mechanization and crop diversification even now are beginning to crowd history and tradition. The plane's-eye view of Greenville, Clarksdale, Grenada, Greenwood, and particularly Vicksburg and Natchez along the banks of the great river, gave real substance to the claim that more than 100 industries have moved into Mississippi Power & Light's area since 1950.*"

crop diversification even now are beginning to crowd history and tradition.

The plane's-eye view of Greenville, Clarksdale, Grenada, Greenwood, and particularly Vicksburg and Natchez along the banks of the great river, gave real substance to the claim that more than 100 industries have moved into Mississippi Power & Light's area since 1950.

CERTAINLY there was plenty of evidence of new industrial development to press home the yarns about the resurgence of the "Old South."

Moreover, there was ample indication that beautiful antiquity and the substances of a dynamic modern economy can meld without esthetic conflict. For the California group visited two of Natchez' most famous antebellum homes that sit near the heart of Mississippi's own bustling oil developments.

The pull of resources, room, science, and the charm of Mississippi's hospitality and tradition are undeniably enticing. But Old Mississippi's leaders are not letting that suffice. The communities, through bond issuances, also offer to finance plant facilities—for the right company.

And one or another attraction has proved irresistibly strong to such great names in U. S. industry as Spencer Chemical, Westinghouse Electric, Ludlow Manufacturing, Johns-Manville, Armstrong Rubber International Paper, Alexander Smith, Inc. carpets, Jones Lumber Company, Wilson & Company, etc.

As a consequence, from Governor White, who greeted the group at dinner at Jackson, on down the ranks the people of Mississippi exuded the internal assurance that their state is at last emerging from the rôle of agrarian outpost to the industrial East.

They feel good about it. Their traditional hospitality, and the 800-mile plane's-eye view of developments, made it all magnificently convincing.

THE next day's program was similar. Only this day the plane winged south from Jackson, Mississippi, to Bogalusa, Louisiana. And W. O. Turner, president of Middle South's Louisiana Power & Light Company, took over as head "painter" of the new scene.

He was proud to show Bogalusa, for Louisiana Power only recently took over the power distribution facilities in that community.

And well he might be proud. For the town is on one edge of a vast pine forest that is in part the product of a reforestation program begun some thirty years ago. And it's the seat of a very large wood and pulp operation by Gaylord Container Corporation.

From Bogalusa the flight turned west to Baton Rouge to give the Californians a glimpse of the Kaiser Alumina plant there. It turned south, then, and flew over the sugar cane and rice fields and down over the Cajun (Acadian) country where muskrat trapping is an integral part of the nation's fur industry.

The flight went on down over Bayou Point, over Timbalier Bay, then northeast over Grand Isle which gained historic fame as the hide out of Jean LaFitte, the pirate who raided shipping in the Gulf nearly a century and a half ago.

The plane passed over Barataria Bay, across the Breton Sound and

out over the Gulf of Mexico. And there the Californians had a gull's-eye view of offshore oil activities.

Wells in the water, pipelines, and the occasional drilling boat and tanker could be clearly spotted.

BLACK gold fever continues to run high throughout the Middle South area. Louisiana, of course, leads the way. Oil has been found in 59 of the state's 64 parishes, and oil is a billion-dollar business there.

You can sense the fever, looking down from a plane at offshore activities. And you can see it in New Orleans, where California Company, Texas Company, and Humble Oil Company each has completed a big new downtown office building. And where Shell Oil is constructing its own impressive office building.

You can feel it on the flight up the Mississippi river from the Gulf to New Orleans, for more than one new plant is being constructed to press forward the wonders of the petro-chemical age which is just beginning to unfold.

Before flying north to New Orleans, however, the Californians were treated to a bird's-eye view of the Grand Ecaille Works of Freeport Sulfur Company, where sulfur is mined underground by melting it.

And on the flight up river the plane passed over the new Kaiser Aluminum plant at historic Chalmette, where Andrew Jackson defeated the British in the Battle of New Orleans. The plant is going full blast, packaging power in the form of aluminum ingots.

At New Orleans the working format was similar. Only there the group returned to the bus, and G. S. Dinwiddie, president of New Orleans Public Service Inc., the fourth Middle South operating company, was the "painter."

His scene was one of a city burgeoning with new building and bustling with commerce. The old city, gateway to a continent and to the world of shipping, showed plenty that is new both downtown and along its great Mississippi river front.

While tens of millions of dollars have been poured into new downtown buildings, hundreds of millions are being poured into new plants and factories along the river. Kaiser Aluminum's hundred-million-dollar plant is illustrative. So are American Cyanamid Company's $60,000,000 plant, and Lion Oil Company's $30,000,000 plant, both new additions to the wonderful world of chemical development.

There is obviously plenty of room and abundant industrial water. There's a wealth of resources both up and down river. And there's a magnificent port.

It is all there to see, and it was "painted" in grand style for the visiting forty-one from California.

It's the story behind the outstanding growth of Middle South Utilities, Inc., the basis for its trebling in size since war's end.

It's a picture of tremendous promise, as unveiled by Dixon and his associates. For it strongly suggests that Middle South's service area with its population of about four million is bound to expand from this point.

For it's truly frontier stuff.

Fairness to Utility Customers

What has happened to regulation of public utilities during the period of two World wars, a world-wide depression, and more recently inflation in the United States? Have these events alone or in combination changed the pattern of regulation from the standpoint of the utility consumer? That is the important question discussed in this analysis of how fairness to utility consumers must be tested by a leading advocate for the consumer in rate cases.

By JOSEPH SHARFSIN*

THE sociological impact of a world-wide depression, an economic upheaval of unprecedented proportions, two World wars, and unparalleled threats to the survival of our cherished institutions, governmental and otherwise, have wrought changes which neither wishful thinking nor recriminatory legislation can ever eradicate. The many grievous wrongs which have been committed by nations and men in recent history are, I hope, outweighed by the good that has been accomplished. In any event, there is no turning back the course of human history simply because progress is not static, and we do not live in a vacuum.

During this era, the great developments in the science of communications and transportation have been in the forefront. In the past three decades no segment of our business life has been more subjected to the challenge of change than the public utility industry. I make specific reference to the change in the public outlook toward utilities, rather than to the technological changes and improvements in operating efficiency which have been achieved by the industry. The attitude and relationships between the consumer and the utility, and the procedures for solving their respective problems under prevailing laws, are of the utmost importance.

BECAUSE of the very nature of the subject matter with which we are dealing, a discussion about the "Fairness to Utility Customers" necessarily compels consideration of the fundamentals of what is fair to all concerned in the operation of a utility enterprise in this modern day. It may be well at the outset to name those who are the ones concerned. We are talking about public service companies, so it is service to the public that comes first. In all

* Member, Philadelphia bar; former city solicitor. For additional personal note, see "Pages with the Editors."

fairness and intellectual honesty, however, the interests of stockholders, bondholders, and employees are factors which, if ignored can, in my judgment, militate against fairness to the utility customer. Actually, in this progressive, ever-expanding, and dynamic economy through which we are living, these interests are often intertwined and sometimes interchangeable.

It is not my intention to venture any technical analysis of a consumer's or taxpayer's complaint as a basis for what should be considered fairness to the utility customer, but rather to attempt a brief survey of what seems to me some fundamentals which should guide us in thinking about this subject and what can be done about the welter of technical data that clutters up the records of the average regulatory commission. Indeed, it is this very distinction between the strictly legal approach on the one hand, and the realistic need of statesmanlike and practical treatment of the relationship between the utility and the customer, which strikes the note of what I have to say.

THE traditional picture which presents itself in this connection is "John Doe *versus* the XYZ Company." I am frank to say, however, after two decades of experience as the advocate of the claims of the consumer and as city solicitor, representing the city of Philadelphia in its complicated relations with various utilities, that the docket entry, so to speak, should really read as follows: "John Doe *and* the XYZ Company." This is because the utility, no matter of what nature, filters through the entire life of the community. Each is vital to the other. It has been shown that complete victory by one over the other in the end serves the best interests of neither. An operational balance, however, can be achieved, and this only by honest efforts on both sides.

Prior to January 1, 1914, the utilities of the commonwealth of Pennsylvania were regulated by the legislature, by municipal action, and by courts of equity. In later years the need for a system of regulation by one agency resulted in the creation of the original public service commission. The utility commission, as we now know it, has enormous responsibilities in that it is an agent of the legislature, composed of the direct representatives of the people of the commonwealth.

Conversely, equally grave responsibilities fall upon the public utilities since they are, in effect, quasi public institutions. The managements of the majority of utilities recognize the vital importance of their companies to the economic well-being of the communities in which they operate. But, of course, the shortsighted are always with us—notably in the transportation field—and the records of the commission and the superior court are replete with decisions that have called them to account.

FRANKNESS compels the statement that inevitably and by right, counsel can make his contribution to a determination of an issue between the utility and the customer only by a vigorous, even hostile, presentation of the complainant's case and a corresponding defense against the position of the utility. But frankness likewise compels the observation that when this kind of a controversy enters the politi-

cal arena, it is an open secret that some advantages have been known to accrue to the candidate who eloquently denounces the utility and all its works.

Commission and court proceedings chronicle numerous examples of the superlative skill and fervor of the consumer's lawyer who has resisted unfair and unjustified rate increases—a resistance which has proven beneficial in the end both to the public and to the utility—cases in which the utility has been rescued from its own folly by a determined defense against attempts to gain a temporary financial advantage at the expense of the public, and to the detriment of the long-range stability of the company. Similarly there are many cases in which the utility, seeking to protect its stock and bondholders, and with an eye to its continued ability to render efficient service, has been opposed by the reckless and the irresponsible. This long-time condition of affairs challenges the citizen and the lawyer concerned with the welfare of his community to face up squarely to some of the bald economic facts of life that are as plain as day in our modern economy.

THE consumer is entitled to safe, efficient, and dependable service, and he is entitled to this at a rate commensurate with the services received and the financial ability of the company to supply it. This means financial ability in the light of the company's obligation to its investors and to its wage earners. Because it does have the character of a quasi public institution, its investors have advance notice of the limited return to which they are entitled under the law. While the commission exercises its jurisdiction over certain specified costs incurred by the company in supplying the services, such as power, maintenance, cost of financing, depreciation, and other items, it is without any power with respect to wage rates which usually represent the greatest cost the company is required to meet.

In the trial of a rate case, we have the situation in which most items of cost, except wages, are subjected to the most careful examination and there has been much thought given to the question as to whether the commission should be given jurisdiction over wage agreements entered into between the company and its employees. The total costs of operation determine the rate the public must pay, but the public neither through the medium of the commission nor otherwise is represented at the bargaining table. The time probably has not arrived for a fair determination of this question because it has many ramifications, but I firmly believe we are fast approaching the point where the indispensability of

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our utility services is going to compel an answer to the vital problem of bringing about guaranteed, uninterrupted service to the public.

THIS ever-increasing cost of materials and man power has given impetus to the disastrous policy under which some utilities pile up increase upon increase in rates and thereby bring into play the natural and remorseless law of diminishing returns. This insidious condition is one to be guarded against both by the consumer and the company.

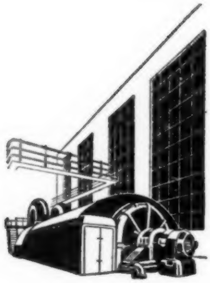
Actually, what happens is that the consumer pays more and more for a service necessarily and progressively less and less efficient, for the simple reason that the utility, under such a policy, steadily loses patrons, derives its income from a constantly decreasing number of users, and in turn must exact still higher rates from less and less people. It needs more money because it has less patrons who purchase its service, and it has less patrons because it has driven so many away on account of its increased rates—a vicious circle if ever there was one!

SOME utilities are faced with unique problems and their solution is dependent on some very special factors. In Philadelphia, for instance, the vital services of gas and street railways present a more complicated problem than the ordinary relationship between the privately owned utility and the people it serves. Because of the ownership by the city itself of the gas plant and the high-speed lines constituting a very vital link in the whole street railway transportation system, the users of these facilities are affected not only in their capacity as ratepayers, but as taxpayers. Their dependence is, to a great extent, upon the operator of these facilities.

While the gas consumer is paying a certain rate for his gas, under a specific formula set up in the operating agreement, he nevertheless receives a return from the profits of the plant. On the other hand, having leased the city-owned high-speed transit facilities to the company operating the whole system, subject to the rate-making power of the public utility commission, he has found himself as a fare-paying passenger bound by a steadily rising spiral of fares while at the same time, as taxpayer, he makes good an annual deficit incurred by the city on account of interest and amortization charges on the bonds issued to construct its facilities.

THIS anomalous situation obviously raises some basic questions of economic philosophy, particularly the age-old question as to when it is wise and beneficial for a municipality to take title to an essential utility. In the not too distant future, Philadelphians may be called upon to decide whether in this situation it would be economically sound for the city to acquire the surface lines constituting the remainder of the transportation system. This kind of serious and urgent issue, I am forced to say, does not and will not receive the calm, patient consideration it deserves.

Whenever the subject of utilities, especially transportation, is projected into public discussion, the result usually is to generate more heat than light. So that, among other things, fairness to the customer requires—and if he



The Utility Roots in Our Economic System

"THE *business-managed public service companies of this country and industry at large provide more goods and services for a greater number of people at lower costs than anywhere, at any time in man's history. It is this root strength of our way of life which symbolizes our American heritage, and the fundamental soundness of our system of government. Survival, however, requires that our government and our business interests be free of predatory purpose."*

were fully familiar with the intricate facts and figures, he would insist upon —real integrity and honest business judgment in dealing with the problem.

There are few cases where municipal operation of a street railway has been successful, but there is a vast difference between bare municipal ownership with private operation and municipal ownership and municipal operation. If the customer can exercise the privilege through the municipality, of which he is a taxpayer and citizen, of taking title to a utility at a reasonable price and enjoy immunity by operation of law from some very heavy charges which presently fall upon private ownership, then it becomes the responsibility of our leaders to clarify and make understandable the facts and figures on which the public can base an honest judgment. If the net result is a saving to the customer who is in the dual capacity of taxpayer and customer, the fact that there are conspicuous examples of heavy subsidies being paid by some municipalities which have undertaken to both own and operate public utilities, is no reason to deprive the taxpayer-consumer of the savings he might enjoy in eliminating charges which are important factors in the rate he is required to pay by an arrangement under which the municipality takes title to the system, but enters into a contract for its private operation.

THERE are men directing the destiny of some great utilities who understand that the public attitude toward their companies is one of the determining factors in the degree of success their companies attain.

These men understand that in the very nature of the relationship of a public utility with the public, usually in a governmental and political setting, there is necessarily a oneness of interest and purpose. This, of course, is not apparent on the surface. But the fact remains, nevertheless.

The reason is simple and clear. The company's goal is to increase the volume of its business. If it deludes itself into believing it can do so by unjustly increasing its rates, it has a rude awakening in store. It will increase its volume when, by efficient operation, it maintains its rate at a reasonable level and within the easy reach of the masses of the people. The customer's ideal is to be offered good and dependable service and at a rate which can be fitted into a limited budget. He must understand, and it is the duty of his public officials to keep him continuously aware of the fact, that he, too, can be cruelly deluded. There is an alluring fool's paradise in which he can live for awhile—a very short while, because the rate must be a sound rate—it must enable the company to maintain its service and yield a fair return to its investors. This is not only common fairness—it is an economic necessity.

I WISH that I could suggest some acceptable and practical method by which these two interests could do away with the long-drawn-out and wasteful litigation that so often results from their dealings with each other. Few consumers know that the very substantial expenses incurred by a utility in the trial of a rate case comes out of their own pockets. These costs, of course, are proper charges under the law for the company to include in calculating its operating charges and in determining whether it is earning a fair return under the law.

This is one phase of the problem, however, from which it can be seen that, at the most, if there is good faith on both sides and an appreciation of their mutual interests, the relationship, however adverse, is not hostile. I am not to be understood as suggesting that there is no proper and necessary rôle for the lawyer in representing these adverse interests. I do maintain, however, that the hostility, which usually characterizes the proceedings, ought to be eliminated. Obviously this would call for a spirit of honor and truth in the research and presentation of the technical data, upon which the rate, and the valuation on which it is based, is arrived at by the utility commission.

AS far back as 1913, the legislature placed upon the utility the burden of proof when it sought an increase in rates, and while this has remained the law, the burden of contesting the company's *prima facie* case has indeed become a very onerous one for the unorganized consumer. Of course, he should never have been required to bear the responsibility of establishing the kind and degree of proof necessary in such proceedings for the simple reason that he is without the facilities and the financial ability to do so. It is true, likewise, that procedural delays inherent in the act and the rules of the commission can operate, sometimes unjustly, to postpone the effective date of an increase in rates and, where such an increase proves ultimately justified, to work a hardship on the company.

The late Justice Alexander Simpson in 1934 referred to what he called the

one-sided argument that "the Public Service Company Law was legislatively conceived and intended as a comprehensive scheme of rate regulation in which saving to the utility of needless expense of litigation was one of its dominant fundamentals," and said that while it was hoped and believed that "needless expense of litigation" would be saved to everyone interested, its "dominant fundamental" was and is that justice shall be done to all concerned, the utility and its customer alike, and that the customer shall not be dominated or delayed by the greater power and influence of the utility, as history showed had all too frequently happened prior to its enactment. It seems to me that this is an eloquent statement of the case and suggests the spirit in which these matters should be dealt with.

Everyone should deplore the regulatory lag in proceedings before the commission and the courts where utility rates are concerned. The company can help by meeting its burden fully, completely, and, above all, as simply as possible. If it fails to do so, it provokes confusion and tactics of obstruction from the consumer's side.

BECAUSE of the nature of the testimony adduced in this kind of proceeding, it would be a forward step if the utility would supply the objecting customer with prepared testimony in advance of the hearing so that it can be carefully digested and considered beforehand.

To some extent, this practice is already in vogue. There should not be any element of surprise in the conduct of the proceedings. The character of the evidence in these cases is such that should be susceptible of accurate evaluation one way or another, and if the basis of the company's application is sound and its technical data clear and understandable, it is my belief that in the long run its interests will not suffer by such a practice and the proceedings would be greatly expedited.

ANOTHER expedient which should be of value in more quickly reaching a decision is the adoption of the pretrial conference system. It is easy to see how much time could be saved if counsel for the complainant came to a pretrial conference after having studied and absorbed the basic data contained in the prepared testimony. This would undoubtedly eliminate much delay and confusion.

The importance of this question was recognized by the late Chief Justice Vinson in his recent capacity as chairman of the Judicial Conference of the United States. He called for a meeting

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of representatives of certain governmental departments and agencies, together with members of the bar and the judiciary, for the purpose of examining into the expense and delay for improvement of the administrative process.

I am satisfied that improvement in procedure looking mainly to speeding up decisions in utility cases is inevitable if for no other reason than the growing importance of these services in the modern world.

A LEADER in the power industry has announced a policy of what he calls "enlightened selfishness." The company must run its enterprise to make a profit for his stockholders and attract new capital. Unless he does, a vital necessity of the community may fail or deteriorate, thereby bringing on hardship and even danger to the community. The extent of that profit and the valuation he seeks to place on the company's plant ought to be considered, however, with a sharp and sensitive eye to current economic conditions and the capacity to pay of the average citizen.

My observation in this respect has been that generally speaking there has been a marked advance in the public relations attitude of the utilities. This is a time when formidable challenge is offered to our philosophy of private enterprise. There is nothing new about this challenge to American industry, American genius, and American resourcefulness. These wondrous times in which we live are but the total response to challenge by American business since the inception of the industrial age.

The consuming public, the public upon whose patronage and good will rests the success and progress of commerce and industry, has a right to expect dynamic leadership for the perpetuation of this system of private enterprise—the foundation stone on which rests our greatness as a nation.

THE business-managed public service companies of this country and industry at large provide more goods and services for a greater number of people at lower costs than anywhere, at any time in man's history. It is this root strength of our way of life which symbolizes our American heritage, and the fundamental soundness of our system of government.

Survival, however, requires that our government and our business interests be free of predatory purpose. The profit motive, by all means yes, but based upon common sense and vision, and appreciation of the diverse factors involved in the economic well-being of an enterprise, not just for today but tomorrow too. In this regard, all utilities have a special responsibility which is more clearly defined probably than in any other field of business endeavor.

Investors in utilities know beforehand that extraordinary earnings are not to be expected or permitted in this kind of enterprise. By the same token, the utility customer has a right to expect adherence to business principles, which permit a fair and reasonable return to the company. This is as important to the consumer as to the utility for such assurance is essential to dependable and efficient utility services, and to the progress and development of the area in which it operates.

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Washington and the Utilities

McKay Sets the Record Straight

SECRETARY of Interior McKay found himself busy in the closing days of November clearing up misimpressions which have been assiduously sown throughout wide areas about the Eisenhower administration's power policy. Leaving aside the methods or motives of these busy little planters, it is obvious that an attempt to put the administration's policies in a bad light is far from spontaneous or sporadic. It bears the marks of experienced organization.

Specifically, the Interior Department has been accused of (1) trying to make the investor-owned power companies the only distributor of electricity for REA co-ops in some areas; (2) trying to scuttle the "preference clause," which gives co-ops and public agencies a priority in the purchase of power from Federal projects; (3) trying to take over the Tennessee Valley Authority and make it a subordinate agency of the Interior Department.

McKay appeared on a Columbia Broadcasting System TV show as "the man of the week," in Washington, D. C., on November 22nd, to deny the first of these reports. He said he foresees no possibility that privately owned power companies may now move in to become the only supplier of electricity for the REA co-ops. At the same time, he said that under the new bill of rights for the power companies, he expects private capital to increase its activity in the utility field.

McKay called this plan a contract "subject to other contracts ahead so the power shortage won't amount to anything."

"We like for everyone to work on this program to keep up with the demand of power," he said.

The Interior Secretary said there is a great need in the United States now for energy—"hydro, gas, oil, or what, or even atomic energy." All these energies must be developed, he said, "if we are going to keep pace and keep our people going full time economically."

COMMENTING on reports that midwest farmers were disturbed about private power's becoming the only source of electricity, McKay said "these people have been agitated by certain people going around and holding meetings and telling these stories." He said the administration "will be out there answering some of these things some of these days if we can get around to it."

McKay said he is opposed to the government's policy of supporting such projects like the Tennessee Valley Authority. He called it "strong central control with people in Washington telling people back home how they should act."

He said, however, that "without the government there wouldn't have been the vast hydro resources in the Northwest."

It was two days later that McKay had to puncture the ballooning rumor being circulated around the Tennessee valley that his agency is "promoting" the idea of making the Tennessee Valley Authority part of the Interior Department. Of course, the Secretary's statement did not say that he would not accept supervision of the TVA if that were proposed by the President, or if it were recommended by the Hoover Commission or some other administration source and translated into law by the Congress. But what Secretary McKay wanted to dis-

count, however, was any idea that the Interior Department is going around building up sentiment for a merger or any other process of absorption which would place TVA under the wing of the Cabinet agency.

This is not a new problem for the Secretary of Interior. McKay's long-term New Deal predecessor, the late Harold L. Ickes, had to put this particular fire out repeatedly. Every so often the word would go around that Ickes—certainly a man of many jobs in the Federal government and one not disposed to run away from any responsibility—was reaching for the TVA. Ickes always denied the charge.

Later on, when there were efforts by New Deal Congressmen from the Northwest to establish a Columbia Valley Authority, it wasn't quite so clear that Ickes was willing to let the new "authority" be born and bloom completely independent of the Interior Department. But in McKay's case it can at least be said that everything he has done to date discounts the idea that he is reaching for new powers or dominating control, especially in the field of Federal electric production and distribution. His record to date would seem to point in the opposite direction, turning back responsibility to the states and local authorities where practical and desirable.

ALONG the same line McKay had recently explained his department's action in getting out of the synthetic fuel research program. Addressing the National Industrial Conference Board in Pittsburgh last month, McKay said that the Interior Department will still take part in joint projects with industry to assure that the $80,000,000 spent by previous administrations on developing liquid fuels from coal will not be wasted.

McKay believes that the work conducted at the coal hydrogenation plant in Louisiana, Missouri, proved that the basic research was sound. But it had reached a point of diminishing returns and was costing the government $10,000 a day to operate. Closing the Louisiana plant will save the government $4,000,000 this year. Offering the fruits of its research to private industry is in line with new administration policy. McKay said he did not believe that further government research would be able to find out anything that private industry could not find out quicker and at less cost.

CIO Plumps for Public Power

THERE is some bewilderment among the CIO Utility Workers Union of America over the way the international union more or less officially joined criticism of the Eisenhower administration's power policy at its recent convention in Cleveland. The CIO Utility Workers is that union branch of the CIO which has the most immediate concern and jurisdiction over the organization and bargaining representation of employees in operating utilities (other than telephones, which are under the CIO Communications Workers of America). One would think, therefore, that the CIO Resolutions Committee and the top-level policymaking officials would consult the CIO Utility Workers before endorsing any policy statement likely to affect the economic welfare or outlook of the Utility Workers. But such was not the case. They seem to have been systematically overlooked.

The Cleveland convention included in a major policy statement a charge that the Interior Department is engaged in an over-all plan to destroy public power systems. Then the convention, by voice vote recorded as "unanimous," adopted a resolution which denounced the following things:

1. The so-called tidelands oil-gas "giveaway."
2. The plans to turn atomic energy facilities over to private industry.
3. All criticism of TVA as "creeping Socialism."
4. The abandonment of a large Federal dam in Hell's Canyon.
5. The new BPA power contracts in the Pacific Northwest.
6. The new power-marketing standards in the Missouri basin.

7. The proposed private development in Niagara.

8. The St. Lawrence power development by New York state.

9. Single-purpose, flood-control programs based on dams erected for that purpose.

WHEN the resolution was called up, spokesmen for the CIO Utility Workers Union argued in vain. One delegate asked CIO President Reuther why the organization was going so strongly for public power and was told that the objective was to lower costs to the consumer. But would not Federal government manufacture of automobiles also lower costs to the consumer? This discussion hardly pleased CIO President Reuther, with his background of successful bargaining in the automotive industry as head of the United Auto Workers. But he did concede that it was not the objective of the CIO to seek the "nationalization" of the power industry as such. He agreed to "talk it over" with the CIO Utility Workers' representatives before the international organization took any actual steps in this field. That was a vague commitment, but about the best the Utility Workers could do under the circumstances in which they were a hopeless minority.

Support for the resolution came from a union which had some jurisdiction but is less concerned with representing operating utility employees than the CIO Utility Workers Union of America. This was the CIO United Gas, Coke, and Chemical Workers, whose president, Elwood D. Swisher, strongly supported the resolution. He declared that while the national picture was spotty there has been evidence in the Pacific Northwest that "where there is public support of public power there is recognition of the rights of workers to bargain collectively."

This implication that public ownership of utilities means better bargaining opportunities for union employees is quite contrary to the position generally taken by both the CIO Utility Workers Union of America and its opposite number in the AFL, the International Brotherhood of Electrical Workers. Both the Utility Workers and the IBEW have appeared at congressional hearings in opposition to public power proposals on the ground that they endanger the economic security of employees having bargaining contracts with the investor-owned public utility companies in the gas and electric field.

The latest instance of this was the controversial bill which passed the House at the last session to authorize five investor-owned electric utilities to develop more hydroelectric power at Niagara Falls. Both the Utility Workers and the IBEW joined in support of that measure, which is specifically opposed in the CIO resolution approved in Cleveland.

POSSIBLY as a footnote to all this, came word recently that directors of the municipally owned electric and water plant in Frankfort, Kentucky, had unanimously declined to grant a request of striking employees for recognition of a union as their bargaining agent.

The employees had set up a picket line to enforce demands for recognition of the AFL International Brotherhood of Electrical Workers as agent. Their demands were refused in a written statement issued after a conference.

End of the Phillips Case

THE U. S. Supreme Court last month left standing a lower court ruling that the Federal Power Commission should regulate the natural gas rates of some 2,300 producers who sell to interstate pipelines.

In a brief order, the court rejected appeals from the ruling in a test case involving Phillips Petroleum Company, Bartlesville, Oklahoma, one of the country's largest producers.

The FPC originally declined jurisdiction over those companies which produce gas and sell it to interstate pipelines. But the U. S. Court of Appeals for the District of Columbia ruled last May that the commission was wrong.

The FPC now will have to determine whether Phillips' present rates are reasonable.

Exchange Calls

And Gossip

REA Reports Progress on EAS Contracts

THE Rural Electrification Administration and the telephone industry are moving toward a closer understanding with respect to extended area service agreements. Problems involved in the provision of extended area service have been studied and discussed in the telephone industry for some time. Discussions looking toward establishment of uniform standards for intercompany agreements began in 1951 between representatives of the American Telephone and Telegraph Company and the United States Independent Telephone Association. In October, 1952, the USITA subcommittee on extended area service reported to the annual USITA convention that agreement had not been reached on a pattern for use in negotiating the form of settlement for rendering such service.

This inability to arrive at a mutually satisfactory conclusion left numerous REA borrowers, both independent companies and co-operatives, without a firm basis for negotiating uniformly acceptable EAS agreements. REA, therefore, opened discussion with both the USITA and AT&T in the interest of its borrowers. Meanwhile, REA could not approve the EAS agreements proposed by many of the connecting companies because terms were found in many cases to be inequitable and to result in costs and subscriber rates that would jeopardize loan feasibility.

Although the associated Bell companies generally have not adopted a standard or uniform agreement for providing extended area service, some companies have adopted standard reciprocal plans, and others have made substantial revisions in the agreements formerly offered in behalf of lower costs to the smaller rural exchanges. REA is now suggesting that borrowers who are proposing extended area service with a Bell company take immediate steps to negotiate appropriate agreements as nearly as possible in accord with the criteria established by REA for such agreements. In those cases where charges are levied by the Bell company for providing the service, borrowers are asked to make sure that such charges are reasonable and within the limits of subscribers to pay as additions to the previously approved rates.

IN those instances where the Bell companies have indicated a willingness to negotiate EAS agreements on a reciprocal basis, each company would own or provide one-half of the trunks up to the midpoint of a distance of eight or ten miles, each would provide its own termination and switching facilities, and there would be no charge from one company to the other. This latter approach has also been accepted by many of the independent telephone companies. The USITA subcommittee of the toll compensation and settlements committee has continued consideration of the EAS problem for that organization. REA hopes that the independent telephone companies will accept the recommendations of the committee, made at the annual convention last October, for negotiating EAS agreements with REA borrowers.

REA has established the following criteria for use in establishing the need for EAS and the provisions of the EAS agreements:

1. EAS should exist only where there is a recognized community of interest between the exchanges involved and where the distance between exchanges is not excessive (generally where station-to-station toll rate would be 20 cents or less).

2. The exchange areas should be contiguous, or nearly so.

3. In some cases EAS may be justified on the basis that the handling of toll traffic between the points involved would be highly uneconomical.

4. Each company should provide its own termination and switching facilities and, through ownership or rental, one-half of the trunks. However, in those cases where EAS is to be provided over distances greater than indicated in Item 1 above, the smaller exchange will provide the excess trunk mileage.

5. Because of the complexity of making cost separation studies, it is generally considered to be impracticable to administer an EAS agreement based on the annual charges of each party for providing its portion of the service.

6. EAS agreements should be separate from other agreements relating to such items as toll agreements, operator office assistance, and directory service.

REA is emphasizing to its borrowers that in some instances it might be better to establish toll service initially, rather than provide extended area service at excessive costs which the majority of subscribers are unwilling to assume. In any event, EAS is to be held to a minimum in order to reduce costs and subscriber rates as much as possible. When borrowers are unable to arrive at an acceptable agreement, REA, upon request, will provide assistance to the extent possible. The AT&T and the USITA have agreed to assist in difficult situations where a satisfactory agreement cannot be negotiated on the local level. REA will continue to assist borrowers in their efforts to obtain equitable standard agreements in accordance with the criteria outlined above.

Significant progress has been made toward attaining more satisfactory EAS agreements between REA borrowers and the Southwestern Bell Telephone Company. Although Southwestern Bell officials do not feel that standard reciprocal contracts are practicable for their exchanges at this time, they have agreed to a further downward revision in charges for extended area service. As a result of this liberalization in their approach to the problem, REA now feels that extended area service can be provided where absolutely needed at much more reasonable costs to the small rural exchanges.

Within the immediate future, Southwestern Bell will offer revised EAS contracts to REA borrowers. The company now agrees to stand 60 per cent of the cost of switching and trunks within the Bell exchange boundary, and the borrower will stand 40 per cent of such costs. In addition, the borrower must stand the cost of his switching and trunks to the Bell exchange boundary. Compared to previous contracts offered, the revised contracts will represent a substantial reduction in the monthly charges for EAS where the service is to be provided by automatic exchanges of the Bell company. Moreover, these contracts are to be retroactive to the date the service was initially established.

E. M. Clark, president of Southwestern Bell, has indicated to REA his willingness and intention of working with REA borrowers in efforts to improve and extend rural telephony. REA feels that progress made to date represents a workable basis on which additional improvements can be made as borrowers and the Bell company gain experience. REA intends to continue its efforts to obtain the acceptance of uniformly standard connecting company agreements that will be more favorable to the small rural companies and co-operatives. It is believed that a better understanding of mutual aims by all concerned will aid in attaining this objective.

Financial News and Comment

BY OWEN ELY

Book Value v. Market Price

CHARLES TATHAM, JR., vice president of Institutional Utility Service, Inc., has written an article on "Book Value and Market Prices of Electric Utility Common Stocks" for the November issue of the *Analysts Journal,* on which we comment as follows:

The book value of a utility stock is a statistic which is not always readily available in the financial services, and is never shown in prospectuses of new stock issues. Except as it is imbedded in the rate base, it is probably seldom given much weight in rate cases. However, Mr. Tatham states, "One of the most significant factors in the determination of the cost of common stock capital to public utility companies is the necessary or desirable relationship between book value and average market price. In the field of rate regulation this is a matter of great practical importance, since it has a direct bearing on the attraction of utility equities for investors, and the consequent flow of capital to the industry."

Despite the fact that the Federal Power Commission has been accused of using book value as though it were almost equivalent to market price (in the celebrated "cost of money" rate cases of 1952), Commissioner Nelson Lee Smith last April, in a talk before the National Federation of Financial Analysts Societies in Philadelphia, said:

> I think we can agree that for equity financing to be attractive a stock must command an appreciable premium over book value, and that perhaps this premium must be greater in the newly established venture than in the old and seasoned company. The question is, how great must this premium be? . . . If an approach of this relatively simple character is valid, it should hardly be necessary to burden the record in rate cases with extended dissertations on economic theory, debates concerning the effects of inflation, or efforts to measure the market's appraisal of the speculative worth of natural gas reserves.

THUS far, no one has apparently sought to develop a formula or theory to show the correct relation between book value and market price. Mr. Tatham points out that the average ratio of market price to book value for several groups of electric utility common stocks in 1952 was as follows:

AAA companies	131%
AA companies	150
A companies	148
All companies	145

Because all but a handful of stocks (excepting the AAA issues) came out of holding companies in the postwar period, it is impossible to compare these figures on an historical basis. Prior to 1935 most of the equity money for utility companies was provided by the holding companies; it is probable that book value was not accorded a great deal of weight in those days.

For "all companies" as compiled by Mr. Tatham, the excess of market price over book value rose from 12 per cent in 1943 to 66 per cent in 1946, dropped to 30 per cent in 1948-49 and rose to 45 per cent in 1952, making an average of 38 per cent for the decade. While the high-quality AAA stocks showed an average excess of only 27 per cent as compared with 45 per cent for AA companies, elimination of Boston Edison and Commonwealth Edison would have increased the AAA average to 42 per cent. The figures for A companies (only six in number) were somewhat lower, with a 35 per cent average. Taking six stocks whose record is available back to 1935 (excluding the two Edison stocks just mentioned), the average premium for the 18-year period would have been 39 per cent.

Mr. Tatham sought to compare stocks of companies located in states where the rate base is taken at fair value or reproduction cost, with others which are in states where original cost is used as the rate base. Naturally, he found that three companies in the former category enjoyed an average premium ratio in 1952 of 63 per cent compared with 41 per cent for a larger number of companies in the original cost category.

Mr. Tatham concludes that the figure of about 40 per cent above book value appears to be the normal or average measure of the market's determination of price premium over book value. He states:

It is within this financial pattern that the electric power industry has successfully financed its enormous expansion in recent years. Equity capital has been attracted to the industry in very large amounts, and we can only presume that the reason has been that investors were satisfied with the treatment that they expected to receive. We must also assume that this expectation was founded on the pre-existing financial pattern that had been a matter of record for years.

He further concludes:

If market prices on average exceed book values, it means that a premium is being paid for an opportunity to invest in the industry. This premium reflects the fact that the regulatory allowable rate of earnings has generally exceeded the so-called "cost" of money. This, of course, is in accordance with the legal principles of "fair return," which have consistently held that something more than bare "cost" must be allowed in order to attract capital and compensate for risk. If a more harshly restrictive regulatory attitude had prevailed, with resultant lower earnings, and market prices generally in line with book values, we do not know whether private investors would have provided the equity capital necessary for expansion or not.

Mr. Tatham points out that an increase in the price of a utility stock may reflect either an expectation or realization of higher earnings, or a lower capitalization rate for the same level of earnings. The first expectation would hinge on the possibility that regulating authorities might "raise their sights" and permit a more generous rate base or a higher rate of return; he thinks this would occur only if the cost of money rose, or the element of risk increased materially, but he has perhaps overlooked the political factor in regulation—*e.g.*, the effect of the "turn to the right" in national regulatory policies since the Democratic régime at Washing-

ton ended. The second factor, a higher multiple of earnings, "might well happen in respect to any individual company if its common stock were newly distributed to the public and gradually attained seasoned stature." This is exactly what has been happening during the past decade as operating company stocks were released, one after another, from the holding company nest.

He also points out that an increase in book value can occur either through retention of earnings, or by sale of additional stock at prices materially above book value. Both of these factors have been at work in recent years. He defends the sale of new stock at a premium above book value, because of necessary compensation for risk, which is necessarily greater in periods of expansion such as the present. He points out that the degree of expansion, the magnitude of new capital requirements, and the degree of leverage resulting from capital structure are all factors to be considered.

HOWEVER, it is a little difficult to follow Mr. Tatham in one of his conclusions, when he states that "without doubt the degree of risk pertaining to the common stock investment ties in directly with the necessary price premium—the greater the risk, the higher the premium." He probably refers only to the *permissible* premium from the regulatory standpoint. From a theoretical standpoint, however, the price premium over book value should obviously be smaller (not larger) at a time of greater risk—assuming that the public realizes and weighs this risk, which may not be the case. It is when the stock is fully seasoned and the risk element reduced that investors should be willing to pay a higher premium, as a rule. However, even in the utility field the public may be unduly attracted to the speculative feature involved in rapid growth, not recognizing that this is really an added risk factor. In the 1920's this speculative growth feature, greatly blown up by holding company leverage, produced great speculative interest and rapidly rising prices—whereas from an investment viewpoint the risk factor was rapidly rising. Even in today's markets, the "ghost of 1929" may be a price factor.

Summarizing, Mr. Tatham concludes that an average market price premium of about 40 per cent above book value seems reasonable for a typical electric utility and "if the growth rate is such as to require periodically substantial amounts of new equity capital, considerably higher premiums appear justified, and may well be necessary in order to provide the incentive for new investment in the field."

IN our opinion the ratio of market price to book value cannot be reduced to a simple formula or explanation because it involves a whole series of factors, historical and current, affecting both values. Book values for the great ma-

CURRENT YIELD YARDSTICKS

		1953 Range		1952 Range	
	Recent	*High*	*Low*	*High*	*Low*
U. S. Long-term Bonds—Taxable	2.86%	3.15%	2.77%	2.78%	2.56%
Utility Bonds—Aaa	3.15	3.43	3.01	3.08	2.93
Aa	3.21	3.59	3.07	3.11	2.99
A	3.40	3.72	3.23	3.31	3.21
Baa	3.77	3.94	3.50	3.58	3.46
Utility Preferred Stocks—High-grade	4.16	4.45	4.01	4.24	3.94
Medium-grade	4.55	4.87	4.43	4.71	4.33
Electric Utility Common Stocks	5.29	5.72	5.01	5.62	5.07

Latest available Moody indices are used for utility bonds and stocks; Standard & Poor's indices for government bonds.

jority of utility stocks (*i.e.*, those which emerged from holding companies) were sharply reduced during the 1940's as a result of the elimination of Account 107 (write-ups) as well as the gradual elimination of 100.5 (plant acquisition adjustments), usually by means of amortization over a 15-year period, but sometimes by immediate write-offs. And it must be remembered that the utilities in effect have three sets of books—those kept in accord with strict SEC-FPC orders and presented to stockholders, those kept in accord with Treasury Department rules for tax purposes, and a third set reflecting the accounting policies of the individual state commission with reference to computing the rate base and the earned rate of return. In many cases the latter are more lenient than the Federal rules, particularly with the "fair value" commissions (about one-third of all states). Thus in many cases the state commissions have considered the Federal rules regarding write-offs as too burdensome on the utilities, or they have made moderate concessions to the utilities' problem of coping with inflationary costs, by permitting various devices such as year-end rate base or a return slightly over 6 per cent, etc.

In any event, let us assume that the average rate base exceeds a strict original cost rate base by say 5 or 10 per cent. This would mean that using the average equity ratio of 37 per cent, book values would be given a leverage increase of about 20 per cent for regulatory purpose. This would still leave 20 per cent of the 40 per cent excess of price over book value unaccounted for. But perhaps this may be attributed to factors such as the following: (1) Until recently, the cost of senior money has been extremely low, permitting a 6 per cent return on rate base to be converted into an above-normal return on common stock book value; (2) dividend pay-out is an important factor; (3) some "growth" utility common equities sell at above-normal ratios to earnings, and dividends, and book values, because of speculative interest attached to such growth; (4) the rapid growth of the entire industry in recent years, and the recent interest in utilities as "defensive" stocks, has stimulated market prices.

Another factor to keep in mind is that the excess of market price over book value is reduced in the case of a new stock offering. It has been estimated that the net proceeds of a new issue may average about 10 per cent below the market price prevailing prior to announcement of the new issue. This factor would reduce the effective premium of price over book value by about one-third.

Annual Statistical Reports

For some years the electric utility companies have been furnishing an annual statistical report of a uniform type to the Edison Electric Institute and the insurance companies. A year or two ago distribution of the reports was widened to include utility analysts, and they became less confidential than formerly. The report was designed primarily for electric companies, but included (in addition to the six pages devoted to earnings, property account, and operating statistics) pages G-1 and G-2 to cover gas department statistics.

In recent months two special committees, headed by Douglas Tonge of American Gas & Electric Company for the electric utility industry, and Lewis Herbert of Columbia Gas System for the gas utility industry, have been studying the form of the report and conferring with utility analysts, representatives of insurance companies, and the managers of the statistical departments of EEI and AGA, George Payne and Dan Parson. A few changes have been made in the electric utility form—page 2 is being run vertically instead of horizontally, for example—but the committees' major efforts have been concentrated on the gas data. These have been greatly enlarged so that they correspond in scope to the electric utility data, making the form suitable for use by gas companies

and not merely by the gas divisions of electric companies. Most of the new data were formerly furnished to the AGA, but will now be made more generally available. To save space, the new reports will be printed on both sides of the paper. New gas statistics will include details of the following:

Gas production and purchases.
Gas supply and disposition.
List of gas purchases.
Solid and liquid fuels used in gas production.
By-products recovered from manufactured gas production.
Gas sales for resale.

NOVEMBER FINANCING

PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	*Amount (Mill.)*	*Description*	*Price To Public*	*Under-writing Spread*	*Offer-ing Yield*	*Moody Rating*	*Indicated Success Of Offering*
		Mortgage Bonds and Debentures					
11/10	$25.0	Long Island Lighting 1st 3½s 1983 ..	100.93	.72C	3.45%	A	d
11/10	25.0	Northern Nat. Gas Deb. s.f. 3⅝s 1973	101	.80N	3.55	A	a
11/24	10.0	Gulf States Util. 1st 3⅜s 1983	101.80	.59C	3.28	Aa	d
11/25	20.0	Illinois Power 1st 3½s 1983	102.25	.68C	3.38	A	d
		Preferred Stocks					
11/20	$7.5	Worcester County Elec. $4.44	102.07	1.56C	4.35	—	b
11/25	5.0	Iowa Pr. & Lt. 4.35%	100	1.65N	4.35	—	a
						Earnings Price Ratio	
		Common Stocks—Subscription Rights					
11/24	$1.7	Central Illinois Elec. & Gas	$24.50	*	6.53	9.3%	**
11/25	.7	Maine Public Service	20.25	.40N	6.90	10.6	**
11/27	5.6	Delaware Power & Light	24	.12C	5.83	8.6	**
		Common Stocks—Offered to Public					
11/17	$26.4	Pacific Lighting	33	1.25N	6.06	7.7	a
11/18	5.3	Columbus & Southern Ohio Elec. ..	26.25	1.00N	6.09	8.6	a
11/18	2.0	Iowa Southern Utilities	20.13	.90N	5.96	9.6	a
11/24	4.1	Arizona Public Service	17	.64N	5.30	7.7	a

*Not underwritten; dealers compensated for obtaining subscriptions. **Rights had not expired when data compiled. C—Competitive bidding. N—Negotiated underwriting. a—Reported well received. b—Reported fairly well received. d—Reported the issue sold slowly.

NOVEMBER NEW-MONEY FINANCING
(In Millions)

	Offered to Stockholders	*Sold to Public*	*Sold Privately*	*Total Financing*
Electric Companies				
Bonds	—	$ 56	$11	$ 67
Preferred Stock	—	12	5	17
Common Stock	$8	11	—	19
Total	$8	$ 79	$16	$103
Gas Companies				
Bonds	—	$ 25	$20	$ 45
Preferred Stock	—	—	3	3
Common Stock	—	25	—	25
Total	—	$ 50	$23	$ 73
Total Electric and Gas	$8	$129	$39	$176

Source—Irving Trust Company.

Daily gas availability and requirements.

Heating degree-days.

Miles of main, and compressor stations.

Classification of gas customers, sales, and revenues.

THE first two sheets of the report, giving details of plant account and income statement, will be used by both electric and gas companies. The special table "gas production and purchases," includes BTU's, therms, and dollar amounts for natural, manufactured, and mixed gas. The list of gas purchases, and gas sales for resale, includes the name of vendor, point of receipt, pressure, BTU's per cubic foot, therms, and total cost. The data on fuels show the quantity used, total cost, and unit cost. By-products recovered from production of manufactured gas show the quantity produced, the amount sold, and the revenues realized. (The latter will be credited against the cost of producing gas.) Heating degree-days compare data for the latest year with those for an average year.

Classification of gas customers, sales, and revenues gives a breakdown between residential, commercial, industrial, miscellaneous, and wholesale. Residential figures are divided between customers with house heating, and others; while industrial is divided between firm and off-peak, and interruptible. The figures are to be shown for natural gas, manufactured gas, and mixed gas. The number of BTU's per unit (as distributed) is shown.

It is to be hoped that the gas companies will make full use of the new form, and that the utility companies generally will substitute the new form for the old in sending their 1953 reports to insurance companies and analysts. The committees are certainly entitled to a vote of thanks from the gas industry, and from institutional investors, utility analysts, and investment banking houses, for their efforts to augment and standardize utility statistical data. The committees, and the EEI and AGA, will welcome suggestions for further improvements in the form, over the coming year. Practically all the suggestions thus far made by representatives of major insurance companies, and by leading utility analysts, have been adopted by the committees in revising the 1953 form.

GPU'S New "Cyclone" Boiler Cuts Generating Costs

THE first "cyclone" steam boiler on the eastern seaboard (built by Babcock & Wilcox) was recently placed in service by Jersey Central Power & Light Company of the General Public Utilities System at the E. H. Werner station at South Amboy, New Jersey. Similar units are operating successfully in the Middle West. An entirely different firing method is employed—two "cyclone" cylinders (about 9 feet in diameter) on the front of the boiler burn crushed coal at high temperatures—so high that the ash turns to slag and flows out of the boiler like syrup. The cyclones at Werner station are equipped to burn oil when desired.

The use of the cyclone furnace will permit burning a cheaper grade of coal and will, it is estimated, save $28,700 a year through improved operating conditions, which amount capitalized at 15 per cent means a capital saving of $191,000. There will also be a net capital gain estimated at $60,000 resulting from omission of dust collectors and lower power consumption, making total capital savings over $250,000, compared with a conventional installation. In addition there will be lower maintenance costs, and operating costs will be reduced by not having to dispose of fly ash. The cyclone furnace reduces to a minimum the amount of ash and slag passing through the unit, removing a possible source of shutdowns for cleaning and repairs. Another advantage is the reduced amount of soot and dust contained in the smoke, reducing air pollution by the new stack—an important factor in public relations in view of the recent prolonged plague of smaze along the eastern seaboard.

The major significance of the new boiler and generating unit (62,500 kilowatts) lies in the relatively high operating efficiency and low operating cost. It is expected that when the unit goes into normal operation it will use about three-quarters of a pound of coal to generate one kilowatt hour of electricity, compared with the industry average of a little over one pound.

A second cyclone unit, but twice as large, is scheduled to go into operation in 1955 at Jersey Central's Raritan river station at Sayreville, a few miles up the river from South Amboy. It is expected that it will be even more efficient than the one in service at South Amboy.

Pennsylvania Electric Company, another GPU subsidiary, expects to bring two 137,500-kilowatt generating units into operation in 1954. The design efficiencies of these units are such that it is expected they may very well be among the most efficient units in the country. A nearly completed 230,000-volt transmission line will connect this new station, which is near Clearfield in central Pennsylvania, with the eastern part of the GPU System. The Lewistown-Middleton Junction portion of this 230,000-kilovolt line was energized in November.

These developments indicate the great improvement in generating efficiency which has now been made in the GPU System as a whole. Five years ago all of the plants in the system together used about one and one-quarter pounds of coal to produce a kilowatt hour; they now produce a kilowatt hour with about one pound of coal—a 20 per cent saving.

DATA ON ELECTRIC UTILITY STOCKS

1952 Rev. (Mill.)			*11/25/53 Price About*	*Div. Rate*	*Current Yield*	*Share Earnings*: Cur. Period*	*% Increase*	*12 Mos. Ended*	*Price-Earns. Ratio*	*Dividend Payout*
$206	S	American Gas & Elec.	33	$1.64#	5.0%	$2.53**	13%	Sept.	13.1	65%
27	O	Arizona Public Service ..	17	.90	5.3	1.31	18	Sept.	13.0	69
7	O	Arkansas Mo. Power	21	1.10	5.2	1.63	21	Sept.	12.9	67
23	S	Atlantic City Elec.	29	1.50	5.2	2.03	14	Oct.	14.3	74
5	O	Bangor Hydro-Elec.	28	1.80	6.4	1.97	17	Sept.	14.2	91
3	O	Black Hills P. & L.	20	1.28	6.4	1.84	6	July	10.9	70
79	S	Boston Edison	49	2.80	5.7	2.98	D1	Sept.	16.4	94
15	A	California Elec. Pr.	10	.60	6.0	.90	32	Sept.	11.1	67
14	O	Calif. Oregon Pr.	26	1.60	6.2	1.63	3	Aug.	16.0	98
48	S	Carolina P. & L.	40	2.00#	5.0	2.97	4	Oct.	13.5	67
21	S	Central Hudson G. & E. ..	12	.70	5.8	.85	10	Sept.	14.1	82
15	O	Central Ill. E. & G.	27	1.60	5.9	2.29	—	Sept.	11.8	70
25	S	Central Ill. Light	39	2.20	5.6	3.26	23	Oct.	12.0	67
35	S	Central Ill. P. S.	20	1.20	6.0	1.40	1	Sept.	14.3	86
8	O	Cent. Louisiana Elec.	22	1.00#	4.5	1.54	12	Sept.	14.3	65
25	O	Central Maine Power	19	1.20	6.3	1.35	D12	Oct.	14.1	89
88	S	Central & South West	22	1.16	5.3	1.65	11	Sept.	13.3	70
8	O	Central Vermont P. S. ..	15	.84	5.6	.97	D1	Oct.	15.5	87
83	S	Cincinnati G. & E.	21	1.00#	4.8	1.52	9	Sept.	13.8	66
5	O	Citizens Utilities	13½	.40a	6.0a	.95	16	June	14.2	42
87	S	Cleveland Elec. Illum.	54	2.60	4.8	4.05	21	Sept.	13.3	64
2	O	Colorado Cent. Power ...	21	1.12	5.3	1.46	14	Sept.	14.4	77
34	S	Columbus & S. O. E.	27	1.60	5.9	2.27	15	Sept.	11.9	70
304	S	Commonwealth Edison ...	37	1.80	4.9	2.34	8	Sept.	15.8	77
8	A	Community Pub. Ser.	19	1.00#	5.3	1.66	22	Sept.	11.4	60
1	O	Concord Electric	35	2.40	6.9	1.89	D25	Dec.	18.5	127
50	O	Connecticut L. & P.	16	.88†	5.5	.99	3	Oct.	16.1	89
17	O	Connecticut Power	39	2.25	5.8	2.34	D3	Sept.	16.7	96
435	S	Consol. Edison	41	2.40	5.9	3.01	20	Sept.	13.6	80
91	S	Consol. Gas of Balt.	27	1.40	5.2	1.84	12	Sept.	14.7	76
137	S	Consumers Power	40	2.20	5.5	2.97	20	Sept.	13.5	74
53	S	Dayton P. & L.	38	2.00	5.3	2.69	4	June	14.1	74
26	S	Delaware P. & L.	27	1.40	5.2	2.06	24	Sept.	13.1	68
6	O	Derby G. & E.	23	1.40	6.1	1.52	5	Dec.	15.1	92

1952 Rev. (Mill.)		(Continued)	11/25/53 Price About	Div. Rate	Current Yield	Share Earnings* Cur. Period	Share Earnings* % Increase	Share Earnings* 12 Mos. Ended	Price-Earns. Ratio	Dividend Payout
173	S	Detroit Edison	29	1.60	5.5	2.00	32	Oct.	14.5	80
98	A	Duke Power	37	1.85	5.0	2.87	29	Sept.	12.9	64
78	S	Duquesne Light	30	1.60	5.3	2.18	10	Sept.	13.8	73
26	O	Eastern Utilities Assoc. ..	31	2.00	6.5	2.60	14	Sept.	11.9	77
1	O	Edison Sault Elec.	8	.50	6.3	.72	1	Sept.	11.1	70
8	O	El Paso Electric	28	1.60	5.7	2.07	6	Sept.	13.5	77
10	S	Empire Dist. Elec.	23	1.40	6.1	2.14	14	Sept.	10.7	65
4	O	Fitchburg G. & E.	47	3.00	6.4	3.63	16	Dec.	12.9	83
28	S	Florida Power Corp.	29	1.50	5.2	2.00	35	Sept.	14.5	75
61	S	Florida P. & L.	39	1.60	4.1	2.98	13	Sept.	13.1	54
145	S	General Pub. Util.	28	1.60	5.7	2.39	24	Sept.	11.7	67
5	O	Green Mt. Power	24	1.30	5.4	1.83	3	Sept.	13.1	71
37	S	Gulf States Util.	27	1.20	4.4	1.67	26	Sept.	16.3	72
19	A	Hartford E. L.	52	2.75	5.3	3.69	38	Sept.	14.1	75
4	O	Haverhill Electric	38	2.50†	6.6	2.71	5	Dec.	14.0	92
48	S	Houston L. & P.	27	1.20	4.4	1.96	24	Sept.	13.8	61
19	S	Idaho Power	46	2.20	4.8	3.39	42	Sept.	13.6	65
55	S	Illinois Power	42	2.20	5.2	2.80	5	Oct.	15.0	77
33	S	Indianapolis P. & L.	40	2.20	5.5	3.11	D1	Sept.	12.9	71
16	S	Interstate Power	10½	.64	6.1	.94	12	Sept.	11.2	68
18	O	Iowa Elec. L. & P.	20	1.20	6.0	1.88	18	Sept.	10.6	64
26	S	Iowa-Ill. G. & E.	30	1.80	6.0	2.26	5	Sept.	13.3	80
27	S	Iowa Power & Light	24	1.40	5.8	1.87	13	June	12.8	75
23	O	Iowa Pub. Service	23	1.40	6.1	1.78	9	Oct.	12.9	79
10	O	Iowa Southern Util.	20	1.20	6.0	1.99	50	Oct.	10.1	60
41	S	Kansas City P. & L.	31	1.80	5.8	2.38	13	Sept.	13.0	76
19	O	Kansas Gas & Elec.	38	2.00	5.3	3.30	21	Oct.	11.5	61
32	S	Kansas Pr. & Lt.	19	1.12	5.9	1.37	1	Sept.	13.9	82
28	O	Kentucky Utilities	19	1.00	5.3	1.70	12	Sept.	11.2	59
6	O	Lake Superior D. P.	32	2.00	6.3	2.87	10	Sept.	11.1	70
6	O	Lawrence G. & E.	46	2.25†	4.9	2.38	D10	Dec.	19.3	95
59	S	Long Island Lighting	17	1.00	5.9	1.24	10	Sept.	13.7	81
36	S	Louisville G. & E.	40	1.80	4.5	3.27	17	Sept.	12.2	55
6	O	Lowell Elec. Lt.	54	3.35†	6.2	3.63	D2	Dec.	14.9	92
8	O	Lynn G. & E.	28	1.60	5.7	1.88	21	Dec.	14.9	85
6	O	Madison G. & E.	35	1.60	4.6	2.71	10	Dec.	12.9	59
3	A	Maine Public Service	21	1.40	6.7	2.16	60	Sept.	9.7	65
4	O	Michigan G. & E.	32	1.35#	7.2a	2.83	2	Sept.	11.3	48
116	S	Middle South Util.	27	1.40	5.2	2.12**	14	Sept.	12.7	66
18	S	Minnesota P. & L.	20	1.20	6.0	2.00	25	Oct.	10.0	60
2	O	Miss. Valley P. S.	22	1.40	6.4	2.15	34	Oct.	10.2	65
2	O	Missouri Edison	15	.70	4.7	1.46	19	Sept.	10.3	18
8	A	Missouri P. S.	25	1.20	4.8	2.09	34	Dec.	12.0	57
5	O	Missouri Utilities	20	1.00	5.0	1.66	7	Sept.	12.0	60
31	S	Montana Power	30	1.60	5.3	2.71	—	Oct.	11.1	59
15	A	Mountain States Pr.	17	.84	4.9	1.27	21	Sept.	13.4	66
105	S	New England Elec.	14	.90	6.4	1.22**	D2	Sept.	11.5	74
36	O	New England G. & E.	16	1.00	6.3	1.35**	1	Oct.	11.9	74
39	O	New Orleans P. S.	41	2.25	5.5	2.86	2	Sept.	14.3	79
2	O	Newport Electric	35	2.00	5.7	3.48	18	Oct.	10.1	57
63	S	N. Y. State E. & G.	36	1.90	5.3	2.46	19	Oct.	14.6	77
189	S	Niagara Mohawk Power .	28	1.60	5.7	2.00**	—	Sept.	14.0	80
59	O	Northern Ind. P. S.	28	1.60	5.7	2.39	7	Oct.	11.7	67
100	S	Northern States Pr.	14	.70	5.0	1.10	16	Sept.	12.7	64
8	O	Northwestern P. S.	14	.90	6.4	1.39	2	Sept.	10.1	65
101	S	Ohio Edison	39	2.20	5.6	3.05	17	Oct.	12.8	72
32	S	Oklahoma G. & E.	27	1.50	5.6	1.95	11	Sept.	13.8	77
13	O	Otter Tail Power	24	1.50	6.3	2.38	30	Sept.	10.1	63
314	S	Pacific G. & E.	40	2.20	5.5	3.12	43	Sept.	12.8	71
22	O	Pacific P. & L.	21	1.10	5.2	1.89	9	Sept.	11.1	58
87	S	Penn. Power & Light	35	2.00	5.7	2.71	10	Sept.	12.9	74
8	A	Penn. Water & Power ...	37	2.00	5.4	2.31	D9	Dec.	16.0	87
175	S	Philadelphia Elec.	32	1.60	5.0	2.33	2	Sept.	13.7	69

1952 Rev. (Mill.)		(Continued)	11/25/53 Price About	Div. Rate	Current Yield	—Share Earnings*— Cur. Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Dividend Payout
29	O	Portland Gen. Elec.	31	1.80	5.8	2.51	—	Oct.	12.4	72
48	S	Potomac Elec. Power	18	1.00	5.6	1.11	D3	Sept.	16.2	90
52	S	Pub. Serv. of Colo.	34	1.60	4.7	2.33	14	Sept.	14.6	69
214	S	Pub. Serv. E. & G.	26	1.60	6.2	1.99	18	Sept.	13.1	80
54	S	Pub. Serv. of Ind.	35	2.00	5.7	2.34	10	Oct.	15.0	85
17	O	Public Serv. of N. H.	27	1.80	6.7	1.88	D6	Oct.	14.4	96
8	O	Public Serv. of N. M.	11	.56	5.1	.81	14	Sept.	13.6	69
20	O	Puget Sound P. & L.	23	1.50	6.5	1.70	3	Sept.	13.5	88
43	S	Rochester G. & E.	41	2.24	5.5	3.42	36	Sept.	12.0	65
9	O	Rockland L. & P.	12	.60	5.0	.68	11	Sept.	17.6	88
7	S	St. Joseph L. & P.	20	1.20	6.0	1.69	20	Sept.	11.8	71
33	O	San Diego G. & E.	14½	.80	5.5	1.11	5	Sept.	13.1	72
12	S	Scranton Electric	17	1.00	5.9	1.36	25	Sept.	12.5	74
6	O	Sierra Pacific Pr.	31	2.00	6.5	2.87	44	Sept.	10.8	70
127	S	So. Calif. Edison	37	2.00	5.4	2.57	D15	Sept.	14.4	78
27	S	So. Carolina E. & G.	14	.70	5.0	.93	27	Sept.	15.1	75
5	O	Southern Colo. Pr.	12½	.70	5.6	1.13	27	Aug.	11.1	62
164	S	Southern Company	16	.80	5.0	1.21	8	Oct.	13.2	66
12	S	So. Indiana G. & E.	26	1.50	5.8	2.17	22	Oct.	12.0	69
1	O	Southern Utah Power ..	14	1.00	7.1	1.67	46	Dec.	8.4	60
2	O	Southwestern E. S.	16	.96	6.0	1.41	4	Aug.	11.3	68
27	O	Southwestern P. S.	23	1.20	5.2	1.47	17	July	15.6	82
15	A	Tampa Electric	52	2.80	5.4	3.66	21	Sept.	14.2	77
94	S	Texas Utilities	47	2.08	4.4	3.26	16	Sept.	14.4	64
33	S	Toledo Edison	12	.70	5.8	.91	D2	Sept.	13.2	77
8	O	Tucson G. E. L. & P.	17½	.92	5.3	1.40	22	Sept.	12.5	66
91	S	Union Electric of Mo. ...	23½	1.20	5.1	1.28	2	Sept.	18.4	94
25	O	United Illuminating	46	2.40†	5.2	2.73	15	Dec.	16.8	88
2	O	Upper Peninsula Pr.	17	1.20	7.1	1.34	D5	Sept.	12.7	90
26	S	Utah Power & Light	34	2.00	5.9	2.74	21	Sept.	12.4	66
77	S	Virginia E. & P.	27	1.40	5.2	1.90	12	Sept.	14.2	74
18	S	Washington Water Pr. ...	27	1.60	5.9	1.69	D2	Sept.	16.0	95
100	S	West Penn Elec.	37	2.20	5.9	3.28	11	Sept.	11.3	67
56	O	West Penn Power	41	2.00	4.9	2.39	7	Sept.	17.2	84
9	O	Western Lt. & Tel.	26	1.60	6.2	2.55	31	Sept.	10.2	63
20	O	Western Mass. Cos.	33	2.00	6.1	2.81	31	Sept.	11.7	71
79	S	Wisconsin Elec. Pr.	29	1.50	5.2	2.15	24	Sept.	13.5	70
29	O	Wisconsin P. & L.	21	1.20	5.7	1.65	15	Sept.	12.7	73
27	S	Wisconsin Pub. Ser.	18	1.10	6.1	1.64	26	Sept.	11.0	67
		Averages			5.6%				13.2	73%
Foreign Companies††										
187	S	Amer. & For. Power	9	.60	6.7	2.18	13	June	4.1	28
53	A	British Columbia Power .	18	1.00	5.6	3.00PF	—	—	6.0	33
15	A	Gatineau Power	21	1.20	5.7	1.62	25	Dec.	13.0	74
26	O	Mexican L. & P.	5½	—	—	.90	105	Dec.	6.1	—
8	A	Quebec Power	22	1.20	5.5	1.28	10	Dec.	17.2	94
40	A	Shawinigan Water & Pr. .	40	1.45†	3.6	1.91	4	Dec.	20.9	76
17	A	Winnipeg Electric	47	2.40	5.1	7.09	214	Dec.	6.6	34

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. NC—No comparable figures available. *If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the balance available for common stock. Tax savings resulting from accelerated amortization of defense facilities are excluded (when separately reported). **Based on average number of shares. a—Also regular annual 3 per cent stock dividend, which is included in the yield. #—Also occasional stock dividends. †—Estimated (rate irregular or includes extras). ††—With exception of American & Foreign Power, these stocks are also listed in Canada, and the Canadian prices are here used. (Curb prices are affected by exchange rates, etc.) PF—*Pro forma.*

What Others Think

Utility Management's Rôle under Inflation

THE reluctance on the part of many regulatory agencies to recognize that the value of the dollar has changed for keeps is seriously jeopardizing the financial position of public utilities. Such is the opinion of Robert P. Briggs, executive vice president of Consumers Power Company. Briggs told the Michigan Accounting Conference, recently held at the University of Michigan, he believes a new plateau of price relationships has been reached as a result of some ten years of inflation and that the lower value of the dollar which has emerged from the period of inflation is permanent.

Utilities as a whole have not succeeded in earning a fair return in the inflationary period of the last dozen years, Briggs told the conference. He noted that the Consumer's Price Index of the Bureau of Labor Statistics as of August, 1953, had risen by 93.6 per cent over 1939, while for the same period the gas and electricity component of the index had risen only 1.9 per cent. Larger demands for electric power and increasing skill and efficiency in its production have helped keep costs down, but Briggs called it "a vain hope" to expect increasing volume and better generating efficiency to fully offset increased costs.

"Even the most advanced techniques have not held back the steady attrition of investors' capital through rates which did not realistically reflect the decline in the earning power of the dollar," he said. "Economically speaking, the present rates do not preserve the physical plants. This is largely due to the adherence to original cost for rate-making purposes."

Advocates of original cost in rate making insist that the application of an original cost rate base will average out with the cyclical variations of the nation's economy. Many economists believe, however, that the present inflated dollar is here to stay, and that the most we can hope for is a semistabilization of the dollar near its present level. Briggs cited as an example the rapid rise in wages which has resulted in a permanently higher labor cost. Since labor is such a significant factor in commodity cost, Briggs said it is fair to conclude that we have a permanently higher level of prices. He cited some interesting statistics in support of his argument.

DR. PAUL W. MCCRACKEN recently testified before the Michigan Public Service Commission that unit labor cost stands at an index of 203 in 1953 compared to 100 in 1940. This unit labor cost was the reflection of two factors: the 1953 wage index which is 264 based upon 1940 as being 100, and the 1953 output per man-hour index which in 1953 is 130 compared to 100 in 1940.

From these two facts, McCracken established a unit labor cost of 203 for 1953, compared with 100 for 1940 and noted that a unit labor index for 1953 of 203 is quite comparable to the Consumer's Price Index of 190 for 1953 using 1940 as a base. These figures give a clear indication that the rises in the price level and in unit labor costs have been about the same, both having roughly doubled. In other words, the price level has simply been making the normal adjustment to current cost levels. Briggs agreed with McCracken's conclusion that the present price level is here to stay, although that does not mean that the Consumer's Price Index will never move again. A boom could force the price level higher than at present, but under the downward pressure of a recession the Consumer's Price Index might drop below current levels. The point is that the level around which

"WELL SIR, THE THOUGHT JUST CAME TO ME ONE DAY—
WHY DON'T I TRAVEL IN STYLE? . . . SO HERE I AM."

these short-run fluctuations will occur will be about the level prevailing at the present time.

Since the dollar has already gone halfway to zero, Briggs wondered how much further it would have to decline before regulatory commissions accept it as a fact. The accounting profession is showing increasing interest in the subject, Briggs noted, and pointed to such leaders as Dr. W. A. Paton, who have stressed their belief that public utilities must have compensation for the expiration of the value of properties utilized in producing their services in terms of the current dollar, adjusted to reflect its depreciated value. Not only are the utilities faced with long delays when applying for rate relief, but even when such relief is granted, it comes only after a company has been bled and has actually sustained an impairment in its earning power. "The time consumed in a rate case is so long," said Briggs, "that the

lost earnings constitute a significant sum of money which is irretrievably lost."

Briggs voiced objection to the regulatory practice of relating the earnings of one company to the earnings of other companies of comparable size and similarity of location. Such practice "enables a regulating body to set the beginning and the end, and does not allow a play of normal market forces," Briggs declared. "A more realistic standard for utility earnings should be the earnings which market forces permit to other businesses having a similar risk factor." He continued:

> The capital structure of a typical utility company is characterized by a high percentage of senior capital—bonds and preferred stocks, obligations which call for the payment regularly of fixed sums. So while it is true that the cyclical fluctuations of the economy affect utilities to a lesser degree than unregulated business, such fluctuations can leave a heavy mark on utility equity investors. As to the holders of common stock in a utility, the free play of market forces places him in the same risk position as investors in unregulated business. In other words, almost the entire risk attendant to the enterprise falls on the equity holder.

If a utility is entitled to rates which will permit it to earn a return equal to the return generally being made by other business attended by corresponding risks and uncertainties (and it was so held in the case of Bluefield Water Works & Improvement Co. *v.* West Virginia Public Service Commission, 262 US 679, PUR 1923D 11) it also must be permitted to earn a return sufficient to assure confidence in its securities. "Nothing less will do," said Briggs, "unless we are willing to give up the free enterprise battle and turn the utility field over to the government and henceforth have socialized utilities, in short give the tent to the camel whose head is now inside the door."

Briggs expressed some doubt that an original cost value can be combined with an inflated rate of return to produce a proper allowed net income for the utility, a suggestion often heard in regulatory circles. "Theoretically," he explained, "the product of x times y can be adjusted by adjusting either x or y, in our case either the value or the rate of return. However, practically, it is just as difficult to adjust either factor, and commissions should forget any idea of accomplishing justice by clinging to original cost with the hope that they can grant a sufficiently high rate of return to result in the utility having proper net income. It just does not happen."

The recognition of utility depreciation expense on the basis of conventional methods of writing off in a given year a portion of the original cost without correcting for the change in the value of the dollar has been in recent years a gross understatement of the operating expenses of the public utility, according to Briggs. He cited a private study which indicated that depreciation expense claimed by electric, gas, telephone, and telegraph utilities in the year 1951 failed to reflect the true economic loss in value in terms of 1951 dollars by almost one-half billion dollars. The original dollar cost of these plants was some $56 billion. He stated:

> Public utilities must recognize the current value of the property consumed just as they recognize the current cost of labor, material, and other expenses. Commissions must recognize the propriety of public utilities recovering in terms of today's values the portion of the plant that has expired as a result of today's operations.
>
> Simply expressed, the depreciation of a generator installed in 1939, and paid for in the 100-cent dollars of 1939, must be measured in 1939 dollars and then converted to the equivalent number of dollars in the year the depreciation is being recognized. Under nonconversion of dollar practices the true cost of plant consumed in operations is not matched by the revenues collected from customers. Each year of opera-

tion under present conditions results in the giving to each customer a portion of the plant. Utilities cannot continue to be Santa Clauses.

Most services and goods are bought on a current basis—that is, today's prices in terms of today's dollars. If a utility sells its services at a composite cost of today's costs and yesterday's costs of a higher valued dollar, the customer is simply not paying his way, Briggs declared. "The actual value of the plant consumed should be charged," he continued, "and that value should be computed through the use of indices similar to our present Consumer's Price Index. This would, in effect, state the actual cost of plant consumption in the current year in terms of current dollars."

Briggs said he was not asking for a compromise with the essentials of good accounting procedures—only for an acceptance of the fact that the dollar is not a stable element. He does not recommend that property accounts be restated in terms of current dollars. But he does believe there should be a conversion to cost of the consumed capacity to equivalent current dollars as plant service is consumed from year to year. Such a conversion, he believes, would be precise and not arbitrary; it would actually measure consumed plant from year to year and charge revenues with the cost of that consumption.

There are optimistic signs that both the courts and the regulatory commissions are becoming aware of the impact of inflation on utility operations. Briggs mentioned a recent case in which the Illinois Supreme Court rejected a commission finding that the fair value of a telephone company's property was original cost plus 6 per cent, and directed the commission to take into consideration current economic conditions, price levels, and reproduction costs. The Florida Railroad and Public Utilities Commission has taken recognition of the fact that rising costs, coupled with the lag of regulation, may reduce utility income to the level of confiscation. "Most heartening of all," said Briggs, "is the observation by the National Association of Railroad and Utilities Commissioners that the ranks of the 'value' states, as distinguished from original cost states, have increased, until about one-third or more of the state commissions give some recognition to current cost factors in finding a rate base." While these signs are encouraging, Briggs is not enough of an optimist to label them a trend. He believes they indicate, however, that the processes of regulation are recognizing the economic guideposts of these dynamic times.

Notes on Recent Publications

The electric companies' Public Information Program (PIP) has issued an atomic energy information kit containing background of atomic energy developments of interest to management and other personnel, stockholders, and to customers and the general public. Each member of the PIP will receive two copies of the kit which will be up-dated and supplemented as new information becomes available. The kit has been designed to help a company inform its employees and the public of the status of nuclear power. This involves: (1) explaining the energy potential of nuclear power and how it may be applied for electric power generation; (2) telling of the contribution the electric industry has made in advancing the art of nuclear power technology; (3) explaining the technical, economic, and legal obstacles to be overcome before nuclear power can be fitted into a company's generating facilities; (4) giving customers and all others an accurate understanding of what nuclear power adaptation might mean in terms of electric rates; (5) informing employees and the public of the advantages of private enterprise development of this energy source—and relating this new industry to other industries which have grown from private investment and risk; (6) explaining why the electric industry is interested in nuclear power.

The material in the kit was prepared by and under the direction of Charles Robbins, head of the nuclear energy information division of Bozell & Jacobs.

Each member of PIP is receiving two copies of the kit. Additional copies may be purchased for $3.50 a copy, plus postage. Copies are available to non-PIP companies at $8 a copy, plus postage, from Bozell & Jacobs, Inc. 2 West 45th street, New York 36, New York.

The March of Events

In General

Light's Diamond Jubilee

THE names of Hoover, Edison, Ford, and Firestone, frequently linked some twenty-five years ago, come together again in Light's Diamond Jubilee, it was revealed recently when Charles E. Wilson, chairman of the Jubilee Sponsoring Committee, announced the names of thirty-five committee members. Among them are ex-President Herbert Hoover; Charles Edison, son of the great inventor; Henry Ford II, grandson of the motor magnate; and Harvey S. Firestone, Jr., son of Edison's long-time friend.

The committee will serve as advisers in the next year's celebration of the seventy-fifth anniversary of Edison's invention of the first practical incandescent lamp, which is now being planned by the entire electrical industry.

Other members of the sponsoring committee announced by Mr. Wilson, all presidents or chairmen of their organizations, include D. B. Clayton, National Electrical Contractors Association, Washington; J. H. Jewell, National Electrical Manufacturers Association, New York; Walter H. Sammis, Edison Electric Institute, New York; J. R. Whiting, Association of Edison Illuminating Companies, New York.

Ralph J. Cordiner, General Electric Company, New York; Cleo F. Craig, American Telephone and Telegraph Company, New York; Walter P. Marshall, Western Union Telegraph Company, New York; Don G. Mitchell, Sylvania Electric Products, Inc., New York; William S. Paley, Columbia Broadcasting System, Inc., New York; Gwilym A. Price, Westinghouse Electric Corporation, Pittsburgh; W. A. Roberts, Allis-Chalmers Manufacturing Company, Milwaukee; David Sarnoff, Radio Corporation of America, New York; Thomas J. Watson, International Business Machines Corporation, New York.

J. B. Black, Pacific Gas and Electric Company, San Francisco; George H. Blake, Public Service Electric & Gas Company, Newark; Prentiss M. Brown, Detroit Edison Company, Detroit; Edgar H. Dixon, Middle South Utilities, Inc., New York; B. L. England, Atlantic City Electric Company, Atlantic City; Willis Gale, Commonwealth Edison Company, Chicago; E. L. Lindseth, Cleveland Electric Illuminating Company, Cleveland; H. P. Liversidge, Philadelphia Electric Company, Philadelphia; J. W. McAfee, Union Electric Company of Missouri, St. Louis; C. B. McManus, Southern Company, Atlanta; I. L. Moore, New England Electric System, Boston; W. C. Mullendore, Southern California Edison Company, Los Angeles; H. R. Searing, Consolidated Edison Company, New York; Philip Sporn, American Gas & Electric Service Corporation, New York; Frank M. Tait, Dayton Power & Light Company, Dayton; E. S. Thompson, West Penn Electric Company, New York.

C. P. Crane, Baltimore, Electric Companies Advertising Program; R. E. Ginna, Rochester, Electric Companies Public Information Program.

Community celebrations are being planned by electrical manufacturers and utilities in nearly 600 towns and cities throughout the country. This figure is expected to rise to more than 700 within the next few months.

Georgia

Municipal Gas Vote Halted

A REFERENDUM scheduled in Jackson, Butts county seat, on November 24th on a $400,000 bond issue to pay for the installation of a municipal gas system was halted by a temporary injunction filed just a few hours before the polls were to open.

The injunction was filed by attorneys for a citizen and taxpayer. Judge Vaughn of the Stone Mountain Circuit granted the injunction and set a hearing on the petition for December 3rd.

The petition for injunction, among other things, alleged that the mayor and city councilmen entered into an agreement for a contract to install a natural gas system at a cost of $400,000 which, the petition alleged, was illegal in that it was for an exorbitant price and was for at least $100,000 more than the amount for which a gas system could be installed.

Illinois

New Gas Company Slated

ARTICLES of incorporation were filed last month with the Illinois Secretary of State to organize Northern Illinois Gas Company as a subsidiary of Commonwealth Edison Company. The action implements Edison's previously announced plan to segregate its gas operations.

The new company will own and operate the gas properties of Edison's Public Service Company division, which serves 450,000 gas customers in northern Illinois outside the city of Chicago.

The majority of Edison directors also will serve as directors of the new gas company, it was announced.

As part of the program, Edison plans to sell $60,000,000 of mortgage bonds which will constitute a lien on the gas properties. When the properties are transferred to the new company, the bonds will become obligations of Northern Illinois Gas Company and will represent about 50 per cent of the company's net book value.

Michigan

Bonding Powers Sought

EXPANSION powers for the 40 municipally owned utility plants in Michigan will be sought again in the state legislature's 1954 session.

John H. Huss, executive director, said the Michigan Municipal League will support a bill to give such utilities the authority to issue revenue bonds for expansion projects.

"These municipalities are not interested in acquiring more public utilities," he said. "They want to be able to expand their present systems to meet demands of a growing population."

Huss said the bill, defeated in the past, is a "must" for the 40 communities. The growing problem, he said, is that cities find they must use their general bonding power for other improvements. In order to keep their municipal utilities up to date, he said, revenue bonds are advisable.

Montana

Seeks Clarification

A RESOLUTION adopted by the state railroad commission last month urged the enactment of Federal legislation to "eliminate unnecessary and expensive duplication of regulation by the

Federal Power Commission and the various state regulatory bodies."

The resolution noted that a pending Federal measure, HR 5976, already passed by the House and now in the Senate Interstate and Foreign Commerce Committee, would "establish whether a given company is to be regulated by the Federal Power Commission or a state agency." The bill would amend the present Federal Natural Gas Act.

"The elimination of duplication of effort," the state commission said, "will reduce costs, thereby benefiting the consuming public . . . would be beneficial to state jurisdiction, and would not affect Federal jurisdiction, the several states being competent to so regulate the matters and things contemplated therein."

Copies of the resolution were ordered sent to the state's congressional delegation, to other state regulatory bodies, and to the National Association of Railroad and Utilities Commissioners.

New Mexico

Commission Issues Order

THE state public service commission last month permitted the Public Service Company to integrate its electric system and charge uniform rates in Albuquerque, Las Vegas, and Santa Fe, but it granted the utility only one-third of its request for additional revenues.

In a 182-page rate order which took more than four months to write, the commission held that a rate of return of 6.3 per cent for the company is "just and reasonable." The Public Service Company had asked for a return of 6.85 per cent on its investment in water and electric properties in New Mexico.

The company sought $968,500 in additional revenues annually from its electric customers. The commission gave it only $312,000.

The company sought to receive a total of $551,062 after taxes from its rate request, but the commission's order would give it only $200,000 in additional net revenues.

Oklahoma

Rate Boost Approved

CLIMAXING eleven months of controversy, the state corporation commission recently granted Consolidated Gas Utilities Corporation a $2,137,606 rate increase. The commission's action was merely a repromulgation of the order issued last January 28th, and set aside after protests from scores of cities and businesses served by the company.

Pennsylvania

Gas Rate Increases Approved

THE state public utility commission last month authorized the Pennsylvania Gas Company, Warren, to increase its natural gas rates an estimated $909,542, effective November 27th. The higher rates will affect 53,000 residential, commercial, and industrial consumers in Erie, Elk, Forest, McKean, and Warren counties.

The increase was originally filed to become effective last February 27th, but the commission suspended it for a 9-month investigation.

Including the $909,542 increase, the commission found the company entitled to a total of $6,956,118 annual revenue.

The commission also authorized the Union Heat & Light Company, Emlenton, to increase rates of 5,528 natural gas consumers an estimated $54,200 annually.

Progress of Regulation

Loss from Gasoline Operations Improperly Ignored in Natural Gas Rate Case; Return Properly Set

An order of the Federal Power Commission reducing wholesale natural gas rates of the Colorado Interstate Gas Company was upheld by the United States Court of Appeals in all but one respect. It disapproved of the commission's refusal to consider losses from the company's gasoline operations in determining the cost of natural gas service.

Prior to this proceeding, the company had obtained authority to merge with another natural gas company. The merger order contained a condition that losses from the gasoline operations should not be considered in establishing new rates. These operations were as much a part of the company's business as any other operations and would have been so treated if it were not for the condition in the merger order. Noting that the important and deciding factor in the rate hearings is the end result, the court said:

> It would seem that the elimination of the loss of the gasoline operations from the cost of service deprives Colorado of earning the fair rate of return to which it is entitled. It means that this loss must come out of the net profits of the stockholders notwithstanding that it is an element of cost of service. Nor is it an answer to say that this was a condition of the merger order and that, therefore, Colorado's stockholders are bound and saddled with this loss. We are dealing here with a business affected with a public interest. Parties in such businesses are not free to contract as they choose. They are subject to regulation by proper governmental authority. In the exercise of its jurisdiction, such authority must be fair, both to the public and to the utility. It is the statutory duty of the commission to establish on the one hand rates that are fair and just to the utility and on the other hand to strike down rates that demand an unlawful and unreasonable exaction. A rate based upon the exclusion from the cost of service, no matter for what reason, of a substantial amount of admitted operative cost does not and cannot reach a just end result and may, therefore, not stand.

The court concluded that the commission could not predicate its approval of the merger upon a condition which it could not adopt in a rate hearing and which would thereafter deprive the company of the opportunity to earn a fair return upon its investment.

The record in the commission proceeding contained evidence on the subject of return, including average yields for bonds of public utilities, railroads, and industrials, as well as U. S. Treasury bonds. There were data on public offerings of natural gas bonds, preferred and common stocks, earnings-price ratios of various natural gas companies' common stocks, and natural gas companies' capitalization ratios. Information was also supplied as to the petitioning company's outstanding securities and its earnings and financial requirements.

But the commission considered only the financial history of nine natural gas companies subject to its jurisdiction, whose common stock was held by the public, and seven natural gas companies, whose common stock was traded on recognized exchanges, in addition to the data relating to the company's outstanding securities and its earnings and financial requirements.

The company claimed that the commission's cost of capital data were too narrowly based and did not accurately reflect the company's requirements in the matter of attracting capital. The court rejected this argument, saying:

> We believe that the experience of other comparable gas utility companies, having a sound financial structure and long experience of successful operation, is a better criteria by which to gauge and determine the adequacy and fairness of rate of return than that of railroads, power transmission companies, or other like utilities engaged in other fields and under other conditions and circumstances, or the rate of return on government bonds or industrial bonds in unrelated enterprises. We do not say that such factors are not proper for consideration but on the other hand failure to give them weighty consideration does not in our opinion constitute reversible error on the record before us in light of the factors that were considered in this case.

The company attacked the commission's allowance of a 5¾ per cent return based on the comparative cost of capital of gas companies subject to commission jurisdiction. The court admitted that the return was lower than any rate previously established which had been called to its attention, but it concluded that from the record it could not say that such a return, properly computed, was unreasonable and confiscatory.

Circuit Judge Bratton, although concurring in the reversal of the order, disagreed with his colleagues on one procedural point. He thought that the commission was in error in omitting the intermediate decision of the hearing examiner.

The majority held that the commission acted properly in dispensing with the filing of the examiner's report in this case, after concluding that there was no material conflict in the basic facts and that the credibility of witnesses was not an issue. *Colorado Interstate Gas Co. v. Federal Power Commission, No. 4541, October 29, 1953.*

Certificate Required for Electric Service Extension into Municipal Plant's Extraterritorial Service Area

A MUNICIPAL electric plant's right to object to a service extension into its extraterritorial service area by an electric company serving adjoining territory was upheld by the superior court of Delaware. The company proposed to extend the service without a certificate. The governing statute provides that an electric company need not obtain a certificate to extend service into contiguous territory not being served by a public utility of "like character."

The company claimed that the municipal plant was not a public utility of "like character" because it was not subject to commission regulation. Consequently, it argued, a certificate was not required for this extension. The court rejected this argument, saying that the statute prescribing certificate requirements did not refer simply to regulated utilities. The act was designed to prevent one public utility from entering into direct competition with another without first obtaining consent. To define the words "of like character" in the manner suggested would be to ignore the aims of the statute.

The court conceded that its interpretation led to the rather anomalous and seemingly unfair result that an unregulated utility is free to invade territory of a regulated utility, whereas the latter

has no like privilege as against the former. The court ventured the guess that, in exempting municipalities from regulation, the legislature had primarily in mind those cities and towns which supply service only to their inhabitants and perhaps a few near-by consumers. Whether it overlooked the comparatively rare situation such as the present one could only be a matter of surmise. At any rate, the court said that whatever might be the wisest policy could not be determined by it, but must be left to the legislature.

At the outset the court held that a municipal electric plant is a public utility entitled to complain to the commission when its interests will be adversely affected by a proposed extension of the facilities of another utility. *Re Delaware Power & Light Co. 99 A2d 270, August 24, 1953.*

Court Refuses to Invade Commission Domain

THE Pennsylvania Superior Court refused to disturb the findings of the commission as to accrued depreciation. A telephone company had submitted relative depreciation studies which utilized depreciation findings the commission had made in a similar proceeding four years before, involving the same company.

The weight to be given estimates of accrued depreciation is within the judgment of the commission, commented the court, and will not be disturbed on appeal. The commission was not bound to accept any particular method and could properly consider estimates based on relative depreciation. The previous depreciation findings, though not *res judicata,* were entitled to consideration when presented as part of these studies.

In finding fair value, the commission had considered depreciated original cost and depreciated reproduction cost based on average prices for periods of from one to five years. The court again refused to substitute its judgment for that of the commission by requiring a 10-year study, saying:

> Appellants contend that the commission erred in not requiring Bell to submit estimates based on a 10-year average price period . . . appellants, in effect, are asking us to hold that the commission *must* require a 10-year price study. This we have never held and do not now do so. Although 10-year price studies have been used and approved . . . we have also affirmed findings based on studies of five years and even less.

Pittsburgh et al. v. Pennsylvania Pub. Utility Commission et al. 98 A2d 249, July 14, 1953.

Telephone Rates Based upon Average Original Cost

THE Oregon commission authorized Pacific Telephone & Telegraph Company to increase rates to yield a return of 6 per cent. In doing so it based the earnings requirements on the average original cost of property used and useful in providing service, less the average depreciation reserve, and including working capital as applied to materials and supplies. The commission concluded that the authorized return would be sufficient to permit the payment of all corporate costs plus a reasonable amount for earned surplus.

The company claimed that a $7\frac{1}{2}$ per cent return was necessary and that, by virtue of rapid expansion, its financial soundness has been impaired because of the unfavorable ratio of equity to borrowed capital. The company also contended that additional revenue was needed to meet increased costs of labor and to provide sufficient earnings to attract capital for the further development and expansion of its properties. It was also the company's contention that consideration should be given to the equivalent dollar value of the rate base. This

would substantially increase the company's book value.

Approximately 10 per cent of the company's revenues are derived from its Oregon operations. The company operates in California, Oregon, Washington, and part of the state of Idaho. It provides both interstate and intrastate service. A wholly owned subsidiary renders telephone service in Nevada. If the requested increase were authorized, the over-all rate of return to the company systemwise would be increased by only two-tenths of one per cent. Consequently, it would have no material effect on the company's ability to secure equity capital without the other states giving a like rate of return on investment in plant.

Recently in the state of Washington the company received a rate of return of not to exceed 6.1 per cent upon its plant investment as determined by the Washington commission, which excluded working capital in its entirety.

An allowance was made for materials and supplies. However, working cash was disallowed on the ground that an adequate supply was at all times available to the company by virtue of accruals for the payment of Federal income taxes. *Re Pacific Teleph. & Teleg. Co. Order No. 32532, U-F-1714, October 6, 1953.*

Discontinuance of Reduced Interexchange Rate Approved

THE Wisconsin commission approved the joint application of a co-operative telephone corporation and a telephone company for authority to discontinue unlimited interexchange service and abandon jointly owned lines between their exchanges. The commission described the present arrangement as a "combination of unlimited service without toll charge, standard message rate tolls, and nonstandard message rate toll."

A traffic study indicated that relatively few subscribers made use of this arrangement. From this the commission concluded that there was not a sufficiently close community of interest between the exchanges to warrant a departure from the standard toll-rate structure.

The commission summarized its views with this comment:

> If there is not a general use of the service, then it follows that it would be discriminatory to apply rates less than standard or to make no charge at all as the costs are absorbed in the general-exchange rate structure. Also in view of the disclosed use of the service the expenditures necessary to rehabilitate the facilities in order to render nonstandard and optional flat-rate-toll service would be an unreasonable burden upon the general-exchange rate structure of both utilities.

Re Marquette-Adams Teleph. Co-op., Inc. 2-U-4062, October 16, 1953.

Carrier's Monopolistic Rights Confined

A MOTOR carrier argued that its monopolistic rights would be impaired if another carrier were granted a certificate to operate between the cities it served. The carrier further claimed that the certificate, if granted, would contravene a statute which required the commission to consider existing transportation facilities over a proposed route. The Virginia commission did not agree, and it approved the application.

The commission, in permitting the applicant to link its scattered operating rights, said that the service was needed and would benefit those residing along and adjacent to the proposed route. The applicant would be able to transport through passengers between the designated cities without the necessity of transfers.

The commission examined the scope of the protesting carrier's operating

rights and decided that the monopoly created thereby could not be extended to other highways connecting the same cities. The objection that the certificate would encroach upon monopolistic rights could not be sustained. *Re Virginia Stage Lines, Inc. Case No. 11469, July 23, 1953.*

Other Important Rulings

An electric company was authorized by the New York commission to exercise franchise rights covering a portion of a town completely surrounded by its existing service area where no other company was franchised to serve the area and no construction except routine extensions would be required. *Re Niagara Mohawk Power Corp. Case 16370, September 18, 1953.*

Temporary approval of an agreement between a regular airline and a bush airline for the transportation of mail was granted by the Civil Aeronautics Board, rather than an examiner's recommendation that two bush lines divide the territory, because a division of the routes would result in a clear duplication of all expenses incident to mail certification and station expenses, because systems small both in route mileage and in annual plane miles flown offer no reasonable opportunity to achieve low unit costs, and because two services would result in a higher cost to the government without substantial added benefits accruing to the public in return for such higher costs. *Re Pacific Northern Airlines, Inc. Docket No. 1889 et al. August 7, 1953.*

A certificate of convenience and necessity, declared the Pennsylvania Superior Court, is a privilege, not a property right, and confers no vested rights upon its holder so that commission cancellation of a certificate does not constitute a deprivation of property. *Slater v. Public Utility Commission, 98 A2d 743.*

The United States Court of Claims ruled that the Civil Aeronautics Board had power to enter an order which fixed an air carrier's rate of mail pay on an annual basis, rather than on a monthly basis, and which required that a balance be struck at the end of the year and that the carrier be credited with amounts accruing in months in which the formula set out in the order provided an indebtedness in the carrier's favor and that the carrier be charged with amounts accruing in months in which the formula produced amounts in the government's favor. *Capital Airlines, Inc. v. United States, 113 F Supp 641.*

The Colorado commission, in denying a motor carrier's application for a common carrier certificate, pointed out that proof of need for a new service in an area in which other carriers are operating may be furnished by customer witnesses only, since the self-serving declarations of the applicant are not sufficient. *Re Garbage Service Co. Application No. 12520, September 18, 1953.*

The South Dakota commission suspended the operating rights of a motor carrier after having found that the carrier, by allowing an individual to transport goods under its certificate without having first obtained commission approval, had abandoned and discontinued service. *Re Union Truck Depot, Inc. Report 5238-B, September 25, 1953.*

The Wisconsin commission ruled that a transit company's allowable return must be sufficient to cover interest and dividend requirements on fixed-charge types of securities and permit reasonable earnings on common stock equity. *Re Milwaukee & Suburban Transport Corp. 2-SR-2629, MC-1467, September 17, 1953.*

The Vermont commission reconsidered and lowered a previously reported return of the New England Telephone & Telegraph Company from 6.25 to

6 per cent. *Re New England Teleph. & Teleg. Co. Nos. 2437, 2437A, 2528, 2578, June 5, 1953.*

An express agency was authorized by the South Dakota commission to increase intrastate rates to the same extent that interstate rates had been increased where the maintenance of the higher interstate rates would have resulted in unjust prejudice and discrimination against interstate shippers and undue advantage and preferential treatment for intrastate shippers. *Re Railway Express Agency, Inc. F-2390, October 12, 1953.*

The Minnesota commission does not believe that farmers and businessmen in an agricultural community who patronize the railroads should have their freight service hampered or their rates increased in order to permit absorption of out-of-pocket losses resulting from passenger train operation. *Re Chicago, St. P. M. & O. R. Co. A-7262, August 26, 1953.*

Authority to discontinue passenger train service subject to the substitution of bus service contemplates a direct substitution, remarked the Wisconsin commission, and any other proposal cannot be entertained. *Re Chicago & N. W. R. Co. 2-R-2506, July 17, 1953.*

A telephone company was denied a rate increase by the Wisconsin commission when it failed to show that definite commitments for wage increases and replacement of outmoded equipment had been made, but they were partly contingent on a rate increase. *Re Strum Teleph. Co. 2-U-4079, September 28, 1953.*

Titles and Index

Preprints in This Issue of Cases to Appear in

PUBLIC UTILITIES REPORTS

Titles

Index

Public Utilities Reports (New Series) are published in five bound volumes a year, with the PUR Annual (Index). These Reports contain the cases preprinted in the issues of PUBLIC UTILITIES FORTNIGHTLY, as well as additional cases and digests of cases. The volumes are $7.50 each; the Annual (Index) $6.00. *Public Utilities Reports* also will subsequently contain in full or abstract form cases referred to in the foregoing pages of "Progress of Regulation."

Re Chesapeake & Potomac Telephone Company of Baltimore City

Case No. 5257, Order No. 50284
September 11, 1953

APPLICATION *by telephone company for authority to increase rates; prior temporary rates made permanent. For earlier Commission decisions in same proceeding, see (1952) 93 PUR NS 215 and (1953) 97 PUR NS 97.*

Expenses, § 9 — Test period — Future estimates.

1. Test period expenses do not necessarily mean that such expenses will be encountered in the coming year, and, on the other hand, there will arise, in the future, need for expenditures in connection with matters not encountered in the test year, regardless of what period was selected for the purpose, p. 163.

Expenses, § 140 — Telephone company — Conversion from manual to dial.

2. Certain costs relating to conversion from manual to dial telephones, as reported as an expense during a test year, were allowed as an operating expense because continued conversion would bring about other expenses in the years in which conversion would take place, thus increasing operating expenses above normal in each of such years, p. 163.

Return, § 4 — Powers of Commission — Proper capital structure.

3. The Commission, although it may not have power to order a company to issue bonds instead of equity capital, has the right to consider what the capital structure should be when it fixes a proper rate of return, p. 166.

Return, § 26 — Cost of capital — Capital structure — Temporary rates.

4. It would be unjust, after considering a proper capital structure in fixing a return for temporary telephone rates, not to allow the company to earn such a return, which was found to be reasonable, upon fixing permanent rates, p. 166.

Expenses, § 114 — Federal income tax — Tax savings of parent.

5. Savings effected by a parent telephone company in filing a consolidated income tax return were not considered in a rate proceeding because wage increases, for which no provision whatever had been made in the present proceeding, would increase the operating company's operating expense much more than any conceivable adjustment of Federal income taxes could add to the company's income, p. 166.

Return, § 111 — Telephone company.

6. Temporary telephone rates yielding a return of 5.90 per cent were considered fair and reasonable and made permanent, p. 166.

Expenses, § 9 — Test period — Propriety of adjustments.

Statement that adjustments cannot be made for every change in costs during a test period, p. 164.

Rates, § 636 — Reasonableness of fixing permanent rates — Temporary order.

Discussion and disapproval, in dissenting opinion, of fixing permanent telephone rates approximately four months after fixing temporary rates, which were to remain in effect for a 9- to 12-month period and which would have afforded an opportunity for testing the results of such rates by actual experience rather than relying on estimates, adjustments, and speculation, p. 167.

(DAVIS, Commissioner, dissents.)

APPEARANCES: Joseph Allen, People's Counsel, and Jacob D. Hornstein, Assistant to People's Counsel; Thomas N. Biddison, City Solicitor, Edwin Harlan, Deputy City Solicitor, and H. Donald Schwaab and Hugo A. Ricciuti, Assistant City Solicitors, for the mayor and city council of Baltimore; Blake T. Newton, for the Chesapeake and Potomac Telephone Company of Baltimore City.

By the Commission: Temporary rates for telephone service furnished throughout the state of Maryland by the Chesapeake and Potomac Telephone Company of Baltimore City were established by the Commission's Opinion and Order No. 49685 of January 23, 1953, 97 PUR NS 97, the Commission having found that the two requirements of § 31 of Art 78 of the Annotated Code of Maryland governing the authorization of temporary increased rates had been met, i.e., that:

(1) The operating income of the company was less than the amount required for a reasonable return upon the value of its property used and useful in rendering service to the public.

(2) A hearing to determine all the issues involved in the final determination of the rates would require more than ninety days of elapsed time.

The finding of the Commission followed hearing on the application filed on August 20, 1952, for both temporary and permanent increased rates. Hearing as to temporary rates was opened on September 15, 1952, and resumed and concluded on December 17, 1952.

The temporary rates allowed by the Commission were estimated to increase the net income of the company by $863,000 for the test year ended October 31, 1952. They became effective with successive billing dates starting February 1, 1953, and, under the Commission's order, the temporary rates may in no event remain in effect for a period of longer than nine months, unless continued for a further period of not more than three months. Bond was required in the amount of $1,350,000 to insure refund of any charges in excess of the permanent rates to be established by the Commission.

Hearing with respect to the permanent rates was opened on May 27, 1953, and concluded on May 29th. The record in the proceeding relating to temporary rates was incorporated into, and made part of, the record con-

cerning permanent rates. The case was submitted on briefs which were filed on July 2nd, counsel waiving oral argument.

In our opinion of January 23, 1953, *supra,* 97 PUR NS at pp. 99, 100, dealing with the temporary rates, we had this to say:

"As less than a year ago the Commission passed upon the rates of the company and as the court of appeals just a little over a month ago, sustained the action of the Commission in every respect, the areas of difference or dispute in the present proceeding are very narrow. This is recognized by both the applicant and those appearing in behalf of the users of the service. Actually, were it not for the fact that at the conclusion of the hearing people's counsel stated that he desired to look further into the question of the treatment of Federal income taxes by the parent and subsidiary companies of the Bell System and requested additional time for this purpose, the record developed at the hearing upon the application for temporary rates in all probability would have been taken as the record with respect to the permanent rates as well."

At the May hearings the applicant's general accounting supervisor, Richard M. Fowler, presented exhibits bringing up to later dates the balance sheet and income statements and estimates as to the return from the intrastate operations under the rates sought, the latest figures available at the time he testified at the hearing on temporary rates being as of October 31, 1952. Assistant Vice President A. L. Lanigan testified as to the effect on the plant and operating accounts of the applicant of conversions from manual to dial.

The only witness offered by people's counsel and the city of Baltimore was the Commission's chief auditor, E. Edward McLean, Mr. McLean having likewise been the sole witness for the public at the earlier hearing. His testimony was directed to the questions of the proper distribution of Federal income tax between the parent American Telephone and Telegraph Company and the subsidiary companies by reason of saving in total tax effected by American through filing consolidated return, and the effect of eliminating nonrecurring expenses in making estimates of earnings for the future which he submitted, which estimates also included adjustments of other items. These two features constitute the full area of disagreement between the company on the one hand and people's counsel and the city solicitor on the other, and brief discussion of each, therefore, seems appropriate.

Nonrecurring Expenses and Other Adjustments

[1, 2] In making estimates for the future it is customary and proper to make adjustments for changes which have occurred during the test period and this has been done in the present proceeding by both the company and people's counsel. The propriety of adjusting certain items is not disputed nor is there any question as to the reasonableness of some of them.

For example, the rates presently charged became effective with successive billing dates starting February 1, 1953, and, manifestly, if we are to get a realistic picture of current revenues for a period as long as a year,

adjustment must be made to show the revenues at the present rates during the entire test year, whatever that year may be. Again, wage rates paid by the company to its employees were increased within the year and, to reflect the present wage level during the test year, adjustment likewise must be made. These are both definite factors and it is readily possible to determine the amount of adjustment for each with reasonable accuracy.

Reductions were made in 1952 in the price of certain manufactured items sold by Western Electric Company to operating companies of the Bell System, including the C. & P., and it is stated that, if the lower prices had been in effect during the entire year ended April 30, 1953, the operating expenses would have been as much as $16,000 less than those actually paid and shown on the books.

The Commission is also asked to eliminate various expenses met by the company in the year in the course of its program of conversion from manual to dial as well as expenses incidental to the change recently made in the numbering system in the Baltimore metropolitan area. And, it is argued, that as certain operating costs are less with dial operation adjustment therefor should be made with respect to those exchanges which were converted to dial during the year.

Regarding the suggested adjustment on account of the change in Western Electric prices, the company points out that while there has been some reduction in these prices, other items of expense have increased, citing, as examples, higher tax rates in Baltimore city and Baltimore county which became effective with the present calendar year. That adjustments cannot be made for every change in costs during the year is clear. There are, inevitably, some reductions and some increases in costs during any period of as long as a year though, unfortunately, in the postwar period the increases have, in the main, greatly exceeded the reductions in each and every year.

Further changes in costs which the company presently is experiencing have been brought about by increases in the license fees for motor vehicles and in the gasoline tax which became effective July 1, 1953, under legislation enacted at the recent session of the general assembly of Maryland. As a means of meeting in part the cost of the state's comprehensive, long-range road building program, the license fees for passenger automobiles and trucks were increased about 50 per cent and the tax on gasoline was raised one cent per gallon. For its fleet of well over a thousand vehicles these higher fees and taxes will together add up to some thousands of dollars and the several very recent increases in the price of gasoline will likewise increase the cost of operation. These instances are merely mentioned, in passing, as bearing out our above observations.

While in a number of exchanges the service was changed from manual to dial during the year, there still remain a considerable number of exchanges which are yet to be converted. At the May hearing it was stated that over 25 per cent of telephones are still to be converted. Already one of the large exchanges in suburban Baltimore, Essex, has been concluded. This conversion, made on July 12,

1953, involved about 10,000 customers' service and over 12,000 telephones. Also, and even more recently, the so-called 2–5 numbering plan was extended to the Annapolis exchange, affecting some 10,000 telephones, this change having been made on July 26th.

Conversion to dial is a continuing process which started many years ago and, had it not been for the intervention of the war, it probably would have been much closer to completion by now than it actually is. While in some years more telephones are changed over than in others, the fact is that there are still a number of exchanges which are to be converted—some this year, some next and, no doubt, others in the next few years as well.

Aside from the greater convenience and speed achieved by dial, there are definite savings in expenses for operators' wages and accounts associated therewith. On the other hand, however, some expenses, notably maintenance and depreciation, are increased. The investment required for dial is higher and the equipment is more complex. The depreciation accrual is on the increased cost and the rate base on which the return is computed is correspondingly higher.

It is necessary that the company have a long-range program for the expansion and improvement of its facilities and large capital expenditures are required for the purpose. So far, in 1953, the capital additions have been running at a rate of about $2,000,000 a month and the estimates contemplate expenditures at an even greater rate for the remainder of this year and the next. The investment per telephone continues to increase, which, as pointed out in a number of earlier opinions of the Commission in the postwar period, is one of the primary causes for these successive applications for rate relief. Increased investment, higher wages, and greatly increased Federal income taxes together are very largely responsible for such increases as have been found necessary in these recent years.

That there are expenses included in the test period for purposes which will not be encountered in the coming year is certainly true. On the other hand, our experience shows that, beyond question, there will arise, in the future, need for expenditures in connection with matters not encountered in the test year, regardless of what period is selected for the purpose. Rate making cannot be reduced to such an exact mathematical formula that the actual expenditures for the future can be foretold. Rates are fixed for the future and while in our estimates we must scrutinize the past, this is largely so that we can get a better idea of what to expect in the period ahead.

The affairs of this company have been gone into by the Commission very thoroughly in this period and various aspects of the several problems with which the Commission has had to deal have been discussed at length in some of its opinions.

While there has been included in operating expense, during the test year, certain costs attendant upon conversion from manual to dial, it has not been shown that these are abnormally large—these expenses must be recovered by the company, if not in one year, then over a period of years. With the continued conversion there

will be other expenses in the years in which conversion takes place, thus increasing the operating expense above normal in each of such years. The Commission does not feel that there has been an unusual or exorbitant charge for conversion costs in the test year.

Federal Income Taxes

[3–6] Protestants claim that company should be credited with savings inuring to the benefit of the A. T. & T. Co., as a result of the parent company filing a consolidated return of all its subsidiaries, of which company is one. The tax which would be payable by company, if it filed a separate return, would be no greater than it now pays to the Director of Internal Revenue, at the direction of the parent company, as its portion of the Federal income tax due on the consolidated return. However, by filing a consolidated return and paying the penalty thereby incurred, the parent company saves the tax on the dividend which it receives from company, a wholly owned subsidiary, and the company pays no greater sum toward Federal income taxes than it would pay if it filed a separate return.

Protestants also claim that the tax which company pays is higher than the tax would be if the company were capitalized on a proper basis. They assert that a part of the capital should consist of debt and that a proper ratio would be 55 per cent equity and 45 per cent debt, and exhibits have been submitted to show the savings to the company which would result from such a capital structure. While this Commission may not have the power to order the company to issue bonds instead of equity capital (a question which we do not now decide), it has nevertheless recommended such a course to company, and the company has only recently secured additional capital funds by the issuance of debenture bonds in the amount of $15,000,000 at a very favorable interest rate. The Commission does, however, have the right to consider what the capital structure should be when it fixes a proper rate of return. This the Commission has repeatedly done. In its opinion in Case No. 4968, filed March 16, 1950, 41 Md PSC 44, 84 PUR NS 175, eight full pages are devoted to this question, and an over-all rate of return of 5½ per cent was found to be fair. The question was again considered in Case No. 5176, and our opinion filed on March 11, 1952, 93 PUR NS 215, again discussed the over-all rate and fixed a rate of return of from 5¾ per cent to 6 per cent, which rate of return was adopted in the temporary case and which we now find to be fair and reasonable. As a proper capital structure was considered in fixing the rate of return it would be unjust not to allow the company to earn the rate found to be reasonable after the consideration of such a capital structure.

Regardless of what position the Commission may hereafter take with respect to the matter of Federal income taxes, including the apportionment of any saving which may be effected by the parent corporation by the filing of a consolidated return, there have been some recent developments which so affect the costs and earnings of the company as to make it unnecessary, as a practical matter,

to make any final determination of the tax issue at this time.

As pointed out earlier in the opinion, changes in costs are bound to occur in any period as long as a year, and this is especially true at this time of constantly changing price levels. While in the exhibits offered in the case adjustments were made to give effect to wage increases made during the test year (we must bear in mind that we are now acting on an application for rate relief which was filed with the commission August 20, 1952, more than a year ago) further increases in wages which have just been offered its employees will add much more to the company's cost of operation than can possibly be involved in any question of adjustment of Federal income taxes. These further wage increases, some of which have been accepted and already made effective, and for which no provision whatever has been made in any of the estimates used in this proceeding, increase the operating expenses much more than any conceivable adjustment of Federal income taxes could add to the company's income.

The fair value of the company's intrastate property as of April 30, 1953, was $140,124,390. The average rate base for the 12-month test period ending April 30, 1953, was $133,792,031, during which time the net operating income amounted to $7,902,887, producing a return of 5.90 per cent. As such return is within the range found to be fair and reasonable, it is manifest that the temporary rates should be made permanent.

Giving effect to the increased rates which were in effect for only a portion of the test period would have resulted in net operating income of $8,200,521 which, when related to the year end rate base, would produce a return of 5.85 per cent.

An appropriate order will be entered. [Order omitted.]

DAVIS, Commissioner, dissenting: There are two basic points on which I differ with the majority and I will discuss those first.

(1) I see no necessity of converting the temporary into permanent rates on the basis of only one or two full months operating statement, under the increased temporary rates to remain in effect for nine months and an additional three months, if necessary. There was a sensible and realistic purpose in this provision. A period of nine or twelve months affords the opportunity of testing the results of a temporary increase by actual experience and it eliminates the necessity of relying upon estimates, adjustments, and speculation. We need not accept the contention of people's counsel that March, 1953, is representative of one-twelfth of the annual operating revenues and expense which may be expected. Nor should we adopt an operating statement for the year ending April 30, 1953, which has to be adjusted and normalized. It would be much more sensible and accurate to await the actual results of operations for a period of at least nine months and, perhaps, even twelve months, which the law allows, before deciding whether the temporary rates should be made permanent. If, at the end of that period it appears that the return to the company has been within the range set by the Commission, then the company is not hurt if the temporary

rates are then made permanent. If, on the other hand, the temporary rates are *now* made permanent, and such higher rates produce a return in excess of that allowed by the Commission, then the *public has* been hurt.

It was the opinion of this commissioner that there was entirely too much haste in establishing a temporary rate increase for the Chesapeake and Potomac Telephone Company of Baltimore City on January 23, 1953 (97 PUR NS 97), to begin February 1, 1953. It is surely too soon to determine whether or not these temporary rates are too large for the public to have such rates permanently saddled upon them. As of this date the actual results of the first five full months of operation under the temporary rates are available and show that the company is earning at the rate of 6.24 per cent. If adjustment is made to net operating income for Federal income tax in accordance with the procedure submitted to the NARUC and submitted by people's counsel in this case, the rate of return earned for the five months of temporary rates would be 6.40 per cent on an annual basis. There is no support for such a high rate of return. Surely the members of this Commission would have been even better informed had we waited until after September 30, 1953, when the fiscal year ends—when eight full months of the temporary rates were in effect, having begun February 1, 1953—when the dial systems in Essex converted July 12, 1953, involving about 10,000 customers' service and 12,000 telephones and the 10,000 telephones in Annapolis, changed on July 26th, had been in operation. Not having the August report before us we are unable to determine just how effective these dial economies are for the company and how much greater the net reserve would be. Surely we should be entitled to know the August and September months report—neither of which is before us—before reaching a permanent decision for the C. & P. Telephone Company rate increase.

If in Case No. 4968, filed March 16, 1950, 41 Md PSC 44, 84 PUR NS 175, $5\frac{1}{2}$ per cent was found to be fair and in the Case No. 5176 (1952) 93 PUR NS 215, $5\frac{3}{4}$ per cent to 6 per cent was adopted, why should we not accept $5\frac{3}{4}$ per cent as a maximum in this case instead of 5.90 which in all probability with the new dial system will be over 6 per cent.

It has been the contention of this commissioner that the public is entitled to the economies which this company will derive in the future from dial installations from evidence submitted as well as from the economies already in existence during this test period. The C. & P. Company should wait several months before applying for new and higher rates to determine the full return from such new equipment and not expect immediate and higher rates for money spent.

It is the contention of this commissioner that the full value of the dial system has never been fully established as to its total economic value to the public. The public enjoys greater speed and the company saves valuable time in the use of the dial system. The public is also greatly relieved with the convenience in being able to complete the calls unaided.

In fact, the opinion of the majority *ante,* at p. 165) supports, in a

measure, the contention I am making. The opinion recognizes that "there are expenses included in the test period for purposes which will not be encountered in the coming year . . . ." It speculates, on the other hand, that "there will arise, in the future, need for expenditures in connection with matters not encountered in the test year, ..." It is in error, however, when it adds to the last quoted sentence, ". . . regardless of what period is selected for the purpose." If we selected the period of nine months, beginning March 1, 1953, the actual expense will be known and not be the subject of speculation. Further, the *actual revenues* and the *actual increase in rate base* will likewise be definite and not mere estimates.

(2) I disagree with my colleague that, in adopting a capital structure of 55 per cent equity and 45 per cent debt, for the purpose of determining a fair rate of return, effect is thereby given automatically to the tax savings which would result from that amount of debt. The two matters, however, are entirely separate and unrelated. If, for instance, the tax rate were very low and the tax savings by virtue of interest were inconsequential and, yet, there were a substantial difference in the "cost of capital" between equity and debt we would still be obliged to calculate the rate of return on the basis of the composite cost of both types of capital. On the other hand, if there were no difference in the "cost of capital" between debt and equity, and, nevertheless, as is the case today, a substantial saving can be effected by a proper debt ratio, the rate of return in no way reflects such tax saving. I have used these extreme examples only for the purpose of illustrating that the assumption of a capital structure for a rate of return does not necessarily give effect to tax savings which might be gained from a proper proportion of debt. To give full effect to both proportions, the debt and equity ratios must be assumed separately in each case.

It is true, as I stated in my dissenting opinion in the temporary rate case, that in fixing the rate of return at between $5\frac{3}{4}$ per cent and 6 per cent we gave *some* consideration to the question of tax savings, without attempting to reduce it to any mathematical formula. The evidence now presented by people's counsel in exhibit compels me to accept those figures as the *minimum* which should be excluded from the company's expense for Federal income tax. The elimination of $234,648 cannot and does not vary or affect the reasonableness of the rate of return heretofore established by the Commission of $5\frac{3}{4}$ per cent to 6 per cent.

It was my contention that an increase of 15 cents per month per telephone instead of 25 cents per month per telephone would produce 5.8 in the temporary case and was a sufficient rate increase to be allowed. Using the chief auditor's computation of average intrastate rate base in the amount of $139,854,959 for the five months of temporary rates, we find that the net operating income according to the Chesapeake and Potomac Telephone Company's books is $8,721,835 which equates to a return of 6.24 per cent. If adjustment were made for Federal income tax on the NARUC basis the net operating income would amount

to $8,956,483 which is a return of 6.40 per cent on the rate base as determined.

For the above-mentioned reasons I therefore cannot approve the full amount of the requested increase to become permanent on the people of Maryland.

MICHIGAN CIRCUIT COURT FOR COUNTY OF INGHAM

City of Ludington et al.
v.
Michigan Public Service Commission et al.

Docket Nos. 34,048, 34,054
July 30, 1953

APPEAL *by municipality from Commission order partially approving telephone company's rate increase application; dismissed.*

Return, § 53 — Confiscation — Service inadequacies.

1. Adequate and nonconfiscatory rates cannot be denied to a utility upon the theory that the value of existing service does not warrant an increase in rates, p. 172.

Return, § 16 — Commission obligation — Reasonable return.

2. The Commission is required by law to fix and determine adequate and nonconfiscatory rates which will produce a reasonable return upon the fair value of utility property, p. 172.

Return, § 53 — Confiscation — Service inadequacy.

3. If the existing service of a public utility is found to be inadequate in certain instances, the Commission cannot impose the penalty of confiscation, since such penalty would not only be contrary to law but would also prevent the company from ever attracting needed capital to make service improvements and would have the effect of causing the company's service to deteriorate further, rather than to improve, p. 172.

COASH, CJ.: On January 22, 1952, General Telephone Company of Michigan, a Michigan telephone utility, filed its application with the Michigan Public Service Commission requesting authority to charge and collect certain specific rates attached to said application designed to increase its gross annual revenues approximately $1,100,000. Public hearings were held by the Commission and concluded on July 2, 1952. At the hear-

ings before the Commission certain municipalities served by the company, including the city of Ludington, intervened and were made parties to the proceedings. Thereafter, on December 5, 1952, the Commission issued its Rate Order T-552-52.11, 97 PUR NS 1, denying the rates requested by the company but prescribing certain increased rates designed to provide the company with additional gross revenues of approximately $660,000 upon an annual basis.

From said rate order both the city of Ludington and the company have appealed to this court pursuant to the provisions of Act 206, Public Acts of 1913, as amended, Stat Ann 22.1441 et seq. Although these separate appeals were consolidated for purposes of trial they are dealt with in separate opinions by this court.

The city's bill of complaint was filed with this court on January 2, 1953. Thereafter, upon petition, General Telephone Company of Michigan was made a party defendant. The city claims that as a matter of law the Commission was without authority to grant any increase in telephone rates of the company because, the city claims, the value of service being rendered to the company's customers does not warrant any such increases and is not worth the price which the customers are now required to pay. It is the position of the city that whether or not the rates and charges of the company are actually confiscatory is beside the point, because—it argues—in Michigan a utility has no right to a reasonable return upon its property unless it is rendering adequate service to its customers.

In answer filed by the defendant Commission these allegations of the city are generally denied. The Commission further claims that in its rate order it did give recognition to the quality of existing service, that it did withhold certain rate increases for magneto type service rendered by the company throughout the state, and positively avers that value of service being rendered was given due consideration in the prescribing of rates and charges. The Commission also avers that the rates and charges prescribed by it are just and reasonable and that marked improvement in the operation and structure of the telephone company has taken place together with greatly improved service being rendered by it. In answer filed by the telephone company the allegations of the city of Ludington are generally denied, and the company avers that its existing service is adequate, that the company's previous rates were unreasonable, unlawful, and confiscatory, that the rates prescribed by the defendant Commission in said rate order continue to be unreasonable, unlawful, and confiscatory, and that the full rates requested by it from defendant Commission in its application of January 22, 1952, should have been approved by the Commission.

The city's bill of complaint was founded upon two concepts of law: (1) that it was unlawful to prescribe rates on a system-wide company basis rather than upon a separate exchange basis; and (2) that it was unlawful to grant relief from confiscation because the value of service furnished to the customers was no greater than existing rates. The company joined with its answer a motion to dismiss, claiming that the system-wide basis used by

the Commission in prescribing rates was a proper and lawful method and fair and reasonable to all of its customers. It also argued that a utility cannot be compelled to operate under confiscatory rates on the theory that the value of service furnished is no greater than such confiscatory rates. The company urged that under the facts and circumstances of this case rates had been prescribed which were unreasonable, unlawful, and confiscatory and that value of service is a factor in determining telephone rates only when such determination is exercised above the level of confiscation and within the zone of reasonableness.

Counsel for the city of Ludington has stated upon the record that plaintiff is not raising the first question in this case. Accordingly, the principal question before this court is whether or not adequate and confiscatory rates can be justified upon the ground that the value of service furnished is no greater than such confiscatory rates.

The opinion filed by this court in the case of General Teleph. Co. v. Michigan Pub. Service Commission, Ingham County File #34054 is by reference, hereby made a part of this opinion.

It is not necessary to determine the conflicting claims of the parties with respect to the adequacy of existing service being rendered by General Telephone Company of Michigan. However, it should be noted that the company has been conducting an extensive program of improvement and expansion of service. In the rate order appealed from the Commission says:

"Present management has made valiant efforts with the tools at hand to raise the level of service provided." (97 PUR NS at p. 15.)

"On the other hand, applicant has been unable to pay a dividend on its common stock since August, 1951, and all available money has been utilized to rehabilitate and expand its equipment and facilities. Outright denial would not achieve the end of improving service, but rather existing service would deteriorate further through inability of applicant to attract its share of additional capital." (97 PUR NS at p. 14.)

[**1–3**] In its rate order the Commission also states that it is of the opinion that under Michigan law it could have denied increased charges for the company's service even though existing rates are confiscatory. This holding of the Commission is erroneous. Adequate and nonconfiscatory rates cannot be denied to a utility upon the theory that the value of existing service does not warrant an increase in rates. Elyria Teleph. Co. v. Public Utilities Commission (1953) 158 Ohio St 441, 98 PUR NS 246, 110 NE2d 59; Re Rochester Teleph. Corp. (NY 1952) 92 PUR NS 33; Telluride Power Co. v. Utah Pub. Utilities Commission (DC Utah 1934) 5 PUR NS 199, 8 F Supp 341; The Michigan Public Service Commission is required by law to fix and determine adequate and nonconfiscatory rates and charges for a public utility which will produce a reasonable return upon the fair value of its property. Michigan Bell Teleph. Co. v. Public Service Commission (1952) 332 Mich 7, 93 PUR NS 367, 50 NW2d 826; Detroit v. Railroad Commission, 209 Mich 395, PUR 1920D 867, 177 NW 306. If existing

service is found by the Commission to be inadequate in certain instances, the Commission cannot impose the penalty of confiscation for such inadequacies. This would be not only contrary to law but also, as the Commission staff recognized, would prevent the company from ever attracting needed capital to make service improvements. Such action would have the effect of causing service to deteriorate rather than to improve, and would be against the interest of the public served by the company.

The court has considered all other questions raised by the parties in connection with this case and believes them to be of no controlling importance except as discussed herein.

In conformity with this opinion a decree may be entered dismissing the plaintiff's bill of complaint. Public questions being involved, no costs may be taxed.

CALIFORNIA PUBLIC UTILITIES COMMISSION

California Central Airlines

v.

Pacific Southwest Airlines

Decision No. 48563, Case No. 5450
May 5, 1953

APPLICATION *by air carrier for order prohibiting alleged discriminatory fares of another air carrier; dismissed.*

Discrimination, § 93.1 — Air carriers — Rates.

1. A complaint by an air carrier alleging that another air carrier's failure to raise its rates to conform with the first carrier's increased tariff is discriminatory, within the meaning of a section of the state Constitution which prohibits carriers from discriminating in charges or facilities, does not state a cause of action in the absence of an allegation that the second carrier is charging some of its passengers rates other than those on file, since the section is only applicable to passengers of a single carrier, p. 174.

Rates, § 252 — Compliance with tariffs — Charge by other carrier.

2. An air carrier which refuses to conform with the increased tariff of another carrier is not violating a section of the state Constitution which prohibits carriers from charging a different fare than that set out in approved tariffs since, by charging the lower rate specified in its tariff, the first carrier is actually complying with the constitutional inhibition, p. 174.

By the COMMISSION: California Central Airlines, by a complaint filed herein on March 16, 1953, alleges that it and defendant, Pacific Southwest Airlines, each operates scheduled air transportation between points

within California in conformity with tariffs filed with and approved by this Commission, that defendant is charging $11.70 for a one-way coach fare between Burbank and San Francisco-Oakland, that complainant charged the same fare between the same points until June 15, 1952, and on that date complainant increased such one-way coach fare to $13.50 pursuant to Order No. 20–12–146 of this Commission issued April 29, 1952, that defendant has deliberately refused to raise its coach fare to the prejudice of complainant and that such action on the part of defendant violates §§ 21 and 22 of Art XII of the Constitution in that defendant's coach fares are discriminatory for the transportation of the same class of passengers being transported by complainant and because defendant is charging a less or different compensation for the transportation of air passengers than established by Order No. 20–12–146 dated April 29, 1952. Complainant asks that this Commission issue an order requiring defendant to cease discriminating against such air passengers and to cease charging less for such service than specified in complainant's tariff.

Defendant, by its answer, admitted it is engaged in intrastate scheduled air transportation between Burbank and San Francisco-Oakland, and charges $11.70 for a one-way coach fare between these points pursuant to a tariff filed with and approved by this Commission and denies that such fare is in any manner prejudicial or discriminatory as to complainant or is violative of the constitutional provisions referred to. Defendant prays, inter alia, that the complaint be dismissed because it does not state a cause of action.

Section 21 of Article XII, in so far as pertinent here, provides that:

"No discrimination in charges or facilities for transportation shall be made by any railroad or other transportation company between places or persons, or in the facilities for the transportation of the same classes of freight or passengers within this state."

The pertinent portion of § 22 of Article XII reads:

"Said Commission shall have the power to establish rates of charges for the transportation of passengers and freight by railroads and other transportation companies, and no railroad or other transportation company shall charge or demand or collect or receive a greater or less or different compensation for such transportation of passengers or freight, or for any service in connection therewith, between the points named in any tariff of rates, established by said Commission than the rates, fares, and charges which are specified in such tariff."

[**1**] It is our opinion that the discrimination referred to in § 21 relates to discrimination between the passengers of a single carrier and that the requirement in § 22 is that no company shall charge a less or different fare than that specified in its own tariff approved by the Commission.

[**2**] The complaint alleges and the answer admits that defendant is charging the $11.70 fare specified in its tariff. Defendant is therefore complying with § 22. There is no allegation that defendant is charging any of its one-way coach passengers

any other fare, and therefore no violation of § 21 is alleged.

The fact that defendant is not charging the $13.50 fare specified in complainant's tariff constitutes no cause of action herein. In fact, if defendant were charging that fare while its present tariff is effective then it would be violating § 22.

We, therefore, find that the complaint herein must be dismissed because it does not state a cause of action.

ORDER

Based upon the conclusions and findings contained in the foregoing opinion,

It is *ordered* that the complaint be and it is hereby dismissed.

WISCONSIN PUBLIC SERVICE COMMISSION

Re Oneida Gas Company

2-U-4004
July 10, 1953

APPLICATION *by gas company for authority to increase rates; granted in modified form.*

Expenses, § 114 — Income tax — Nonutility business — Gas company.

1. Income taxes on a gas company's income from the sale of propane bottled gas, which was considered a merchandising activity, is not allowed as an operating expense, p. 176.

Return, § 92 — Gas company.

2. Proposed gas rates that would yield a return of about 6 per cent were considered fair and reasonable, p. 177.

By the COMMISSION: The Oneida Gas Company, as a gas utility, on March 10, 1953, filed with the Commission an application for authority to increase gas rates by approximately $10,200 annually. The applicant will be authorized to increase rates approximately $6,200 annually effective with the first billing period following the date of this order.

APPEARANCES: Oneida Gas Company as a private gas utility, by Frank Campbell, Assistant Secretary and Treasurer, and John J. McKeague, Auditor. Of the Commission staff: E. M. Downey, rates and research department, and T. R. Soderholm, rates and research department.

Issue: The issue is whether the existing rates of the Oneida Gas Company for gas service at Rhinelander are unreasonable or otherwise unlawful and, if so, what rates and rules will be reasonable and just.

Findings of Evidentiary Fact

The Oneida Gas Company furnishes

propane-air gas service in the city of Rhinelander. Prior to November, 1940, water gas was manufactured and distributed. Since then, a propane-air gas has been distributed. A substantial percentage of the utility's customers are not along existing mains and are served with bottled gas which is metered and billed on the basis of the equivalent amount of 520 B.T.U. propane-air gas. In 1952 sales through metered bottles were 32 per cent of total sales.

The Oneida Gas Company purchases its propane for propane-air gas directly from the Phillips Petroleum Company. The propane in bottles to supply the bottled-gas customers within the city is purchased from the Onigas Company, an affiliated nonutility, which furnishes bottled-gas service in the adjoining area.

The last general rate revision was prescribed by Commission order of July 28, 1930. A recent application in 1949 (2–U–2981) by the Oneida Gas Company for authority to increase rates was dismissed without prejudice to be renewed when conditions change to warrant a change in rates.

Since 1949, costs of both labor and purchased gas have increased to the point where, the applicant testified, a rate increase is necessary. Applicant introduced exhibits demonstrating this increase in operating costs. The utility in this case petitioned for rate increases designed to produce approximately $10,200 additional gross revenue annually.

[1] The 1952 reported loss of $(2,218) in the gas-utility account must be adjusted in two respects:

1. The income tax expense of $754 is not allowable as a gas-utility expense since evidently it is the tax on income from the merchandising activities of the company.

2. As was brought out in testimony in both the 1949 hearing and the present one, the depreciation accruals are too high in comparison with the experience of other gas utilities in the state. For purposes of this case, the depreciation accrual for 1952 has been reduced from the $5,363 reported to $3,877.

Analysis of the company's 1952 report produces a depreciated rate base as follows:

Rate Base (end of 1952)

Utility plant in service	$150,875
Less depreciation reserve	96,126
Plus materials and supplies	7,271
Plus working capital	8,000
Rate base	$70,020

Th reported 1952 revenues and expenses, together with adjustments are given below:

Comparative Income Statement

	1952 Reported	1952 Adjusted
Operating revenues	$71,719	$71,719
Fixed charges		
Taxes—FICA	426	426
City property	1,960	1,960
PSC assessment	85	85
Income tax	754	.....
Depreciation accruals	5,363	3,877
	$8,588	$6,348
Operating expenses		
Production expense	42,716	42,716
Transmission & distribution	7,401	7,401
Customer accounting & collecting	2,528	2,528
Administrative & general	12,704	12,704
	$65,349	$65,349
Total fixed and operating expenses	$73,937	$71,697
Net operating revenues	$(2,218)	$22

A 6 per cent return on the rate base of $70,020 is $4,200. Gross revenue

increase required is $6,200 before taxes. The rates ordered in Appendix A [omitted herein] will increase annual revenues approximately $6,200 as shown below:

Annual Revenue Increases Proposed and Authorized

Rate	Proposed by utility	Authorized by this order
Regular residential rate ..	$3,468	$1,564[1]
Optional residential rate ..	5,352	3,194
Introductory rate	698	770
Optional commercial rate	741	600
Prepay meters, no change		
Penalties, no change		
Total gross operating revenue increase	$10,259	$6,128

[1] The present regular residential rate has been eliminated by combining the customers into the new Rg-1 and Cg-1 rates and revising slightly the availability clauses. The utility agreed to this consolidation.

Findings of Ultimate Fact

The Commission finds:

[2] 1. That the existing rates of Oneida Gas Company, Rhinelander, Wisconsin, as a gas utility, are unreasonable because of inadequacy.

2. That the net book value of applicant's property and plant plus materials and supplies and working capital is $70,020 and that such value constitutes a reasonable and proper rate base for establishment of permanent gas rates herein.

3. That rates herein ordered will yield a return of about 6 per cent on the above rate base, which under the circumstances is a fair and proper return on said rate base and which rates are reasonable and just.

Conclusion of Law

The Commission concludes:

That the Commission has authority under §§ 196.01, 196.03, 196.20, and 196.37, Statutes, to authorize the applicant to establish rates in accordance with the above findings of ultimate fact, and that such order be issued.

Order

The Commission therefore *orders:*

That the Oneida Gas Company, as a gas utility, discontinue its existing rates for gas service and make effective for gas service, the rates set forth in the attached Appendix A [omitted herein] effective the first meter reading date following the date of this order.

FLORIDA RAILROAD AND PUBLIC UTILITIES COMMISSION

Re Southern Gas & Electric Corporation

Docket Nos. 3589-GU, 3616-GU, Order No. 1925
August 27, 1953

INVESTIGATION *of Commission jurisdiction over company providing liquefied petroleum gas; jurisdiction disclaimed and tariffs canceled.*

Gas, § 3 — Commission jurisdiction — Furnishing of liquefied petroleum gas.

1. A public utility which has converted from manufacturing carburetted water gas to furnishing liquefied petroleum gas is no longer under the regulatory jurisdiction of the Commission, p. 178.

Rates, § 92 — Commission jurisdiction — Liquefied petroleum gas.

2. Rate tariffs of a public utility which had converted from manufacturing carburetted water gas to furnishing liquefied petroleum gas were canceled, since a company engaged entirely in the distribution of liquefied petroleum gas does not fall within Commission jurisdiction, p. 178.

By the COMMISSION: [1, 2] By Order No. 1834, in Docket No. 3589–GU, entered on October 27, 1952, this Commission granted the petition of Southern Gas & Electric Corporation of Sarasota, Florida, for an increase in its gas rates to the extent and in accordance with the rates proposed by said corporation. Said order directed that the corporation file with the Commission a schedule of such increased rates for inclusion in and as a part of the tariffs of said corporation.

On August 14, 1952, by Order No. 1818, in Docket No. 3616–GU, the Commission authorized the utility to apply a multiplying factor to all meter readings upon increasing the heating value of the gas furnished to its customers. Such increase in heating value was to be accomplished through a change from furnishing carburetted water gas to propane-air gas.

The Commission has made an investigation of the plant of Southern Gas & Electric Corporation and its production and distribution methods. Prior to August, 1952, this company was engaged in the manufacture of carburetted water gas as aforesaid. At that time it converted its operation from the manufacture of gas to the furnishing to its customers through its facilities of propane-air gas, which is a liquefied petroleum gas. The utility has advised the Commission that it has no intention of reverting to manufactured gas and that it will manufacture none in the foreseeable future; that future expenditures will be devoted to the expansion of propane-air gas equipment.

Under Chapter 366, Florida Statutes, jurisdiction is placed in the Florida Railroad and Public Utilities Commission to regulate and supervise each public utility with respect to its rates, service, and issuance and sale of securities. Section 366.02 of that law specifically states that the term "public utility" does not include a person (which term would also include a corporation) supplying liquefied petroleum gas, in either liquid or gaseous form, irrespective of the method of distribution or delivery, unless such person also supplies electricity, manufactured or natural gas.

Since Southern Gas & Electric Corporation is now engaged entirely in the distribution of liquefied petroleum gas and such company does not supply electricity, manufactured or natural gas, it is apparent that it is no longer under the regulatory jurisdiction of this Commission. It is, therefore,

Ordered, adjudged, and *decreed* by the Florida Railroad and Public Utili-

ties Commission that all tariffs heretofore filed by Southern Gas & Electric Corporation with this Commission be and they are hereby canceled.

OHIO PUBLIC UTILITIES COMMISSION

Re Cincinnati & Suburban Bell Telephone Company

No. 23,439
May 28, 1953

APPLICATION *by telephone company for authority to increase intrastate rates; proposed rate increase approved.*

Apportionment, § 7 — Telephone system — Methods prescribed by Separations Manual.

1. A telephone company's use of the NARUC Separations Manual, as modified by the Charleston Plan, was considered proper to determine the intrastate portion of its property, revenues, and expenses for intrastate rate-making purposes, p. 182.

Apportionment, § 7 — Telephone system — Exchange area overlapping state lines.

2. A telephone company furnishing service to a metropolitan exchange area overlapping state boundaries properly used revenues as the factor for dividing the exchange area property and expenses between the two states for the purpose of fixing intrastate rates, p. 182.

Valuation, § 224 — Rate base determination — Exclusion of plant under construction.

3. Plant under construction was excluded from a telephone rate base despite the fact that the entire depreciation reserve was deducted in arriving at the net value and a substantial portion of the construction work had obviously been financed from the depreciation reserve, p. 183.

Valuation, § 300 — Rate base — Materials and supplies.

4. Materials and supplies were properly included in a telephone company's rate base, since the company may not capitalize interest on any of the property in the Materials and Supplies account, p. 184.

Valuation, § 250 — Rate base determination — Effect of service connection charges collected.

5. A telephone company's rate base should not be reduced by an amount equal to service connection charges collected, since such charges are operating revenue and the related expenses are operating expenses, p. 184.

Valuation, § 290 — Working capital allowance — Accrued funds.

6. Certain accruals representing taxes accrued, advance billing and payment, customers' deposits, and rents accrued should not be deducted for the purpose of determining a rate base, where the amount of unpaid billing as of the test date was considerably more than the amount of advance billing and payments and where the company used those accruals for construction

purposes for which it later had to borrow funds to pay taxes and other items for which it would have used the accrued funds, p. 184.

Expenses, § 92 — Rate case expenses — Amortization period.

7. A telephone company seeking authority to increase rates was authorized to amortize the rate case expenses over a 3-year period, p. 186.

Expenses, § 49 — Pension costs.

8. A telephone company's pension costs, including the regular annual accruals and the so-called "freezing" payments necessary to arrest the growth of the unfunded actuarial reserve requirement and an amount to reduce the unfunded requirement, were allowed as operating expenses for rate-making purposes, p. 187.

Expenses, § 114 — Excess profits tax.

9. The Federal excess profits tax was allowed as an operating expense of a telephone company for rate-making purposes, p. 187.

Return, § 111 — Telephone company.

10. A return of 5.72 per cent, which the rates proposed by a telephone company were estimated to produce, was considered reasonable, p. 189.

By the COMMISSION: On September 12, 1952, the Cincinnati and Suburban Bell Telephone Company (hereinafter called the company) filed with the Commission an application seeking authority to increase its rates and make other changes therein proposed. The proceeding was filed pursuant to § 614–20 of the General Code and all of the exhibits required by that section were filed with the application.

All procedural requirements with respect to notice of the filing have been complied with.

An investigation of the facts set forth in the application and the exhibits attached thereto was caused to be made by the secretary of the Commission (sometimes referred to as the superintendent of the division of investigation) and his report thereon was filed with the Commission on October 17, 1952. Copies of the report were served on all interested parties as required by § 614–20 of the General Code.

Objections to the secretary's report were thereafter filed by the city of Cincinnati (hereinafter called the city) and the Cincinnati Retail Merchants Association (hereinafter called the Merchants). (The city and the Merchants are sometimes hereinafter called the protestants.)

Hearings on the application and objections were begun on December 2, 1952, and continued thereafter from time to time and were finally concluded and the matter submitted on briefs on April 13, 1953.

In addition to the parties above named, appearances were made at the hearing by the city of Norwood, the city of Hamilton, and the county of Hamilton.

The company is an Ohio corporation which furnishes telephone service in the city of Cincinnati and suburban communities in the counties of Hamilton, Butler, Clermont, and Warren, and, through a wholly owned subsidiary, Citizens Telephone Company, it furnishes telephone service to five near-by counties in the state of Kentucky. The company at the time of

filing of the application had nearly 260,000 telephones in Hamilton county, Ohio, and more than 48,000 telephones in Kenton and Campbell counties, Kentucky, which together comprise between 75 per cent and 80 per cent of its total telephones, in a single local service area. For more than fifty years this area has had uniform rates permitting toll-free calls between all the telephones in the area.

The company's plant consists of 59 central offices used in furnishing exchange telephone service and a toll plant which provides toll service. Forty-six of these central offices are located in Ohio. The company's toll system is connected with 19 independent telephone companies' systems and with the toll lines of bordering Bell System companies and of the Long Lines Department of American Telephone and Telegraph Company. One hundred per cent of the company's telephones are dial operated (this figure was 99 per cent at the time of the filing of the application and during the pendency of the application the company's one remaining manually operated exchange was converted to dial operation).

In support of its application the company claims that—

1. Since July 1, 1948, which was the date certain in the company's last rate case, there have been large additional increases in the company's investment in telephone plant.

During the 4-year period, July 1, 1948, to July 1, 1952, this increase amounted to approximately $30,000,000 and the company gained over 50,000 main telephones. During this same 4-year period there have been substantial increases in labor costs and there have also been substantial increases in taxes and in the prices of many items entering into the cost of furnishing telephone service.

2. A comparison of the company's revenues and expenses for the first six months of 1952 with those for the first six months of 1950, which was the first calendar half year following the effective date (July 16, 1949) of the company's last rate increase, shows that, despite a gain of approximately 30,000 main telephones between January 1, 1950, and June 30, 1952, the increase in expenses was approximately the same as the increase in revenues with the result that there was no increase in the amount of net earnings available for fixed charges, dividends, and surplus although the company's investment in telephone plant was $16,000,000 greater on June 30, 1952, than it was on January 1, 1950.

3. The company has been required and will continue to be required to make large expenditures of money to continue its program of plant expansion and improvement. The company estimates that nearly $40,000,000 will be required for these purposes within the next four and one-half years.

4. The additional gross revenue of $387,000 per month or $4,637,436 per year which the proposed rates are estimated to provide are necessary to enable it to attract the necessary capital to carry on its business and to provide for its expansion and improvement program.

The original objections to the secretary's report filed by the city were 12 in number. A supplemental objection was also filed by the city. The objections of the Merchants to the

secretary's report were 21 in number. Many of these objections were either not advanced at the hearings or were abandoned in the briefs. From the record and the briefs filed by the parties it would appear that the real issues in dispute are 10 in number. One of these issues deals with the separations, four with the rate base, four with the expenses, and one with the rate of return.

Separations

[1, 2] The city and the Merchants have criticized the methods used by the company to determine the Ohio intrastate portion of its property, revenues and expenses. Their criticism was directed both to the use of the Separations Manual as modified by the Charleston Plan and to the use of revenues as the factor for dividing the Cincinnati Metropolitan Exchange area property and expenses between Ohio and Kentucky.

We believe, first, that the use of the methods set forth in the Separations Manual as modified by the Charleston Plan was correct. These methods have been approved by the Federal Communications Commission and by the National Association of Railroad and Utilities Commissioners and should be followed, since it is essential that separation methods be uniform.

Furthermore, we believe that the use of revenues as the factor for dividing the Cincinnati Metropolitan Exchange area property and expenses was correct. The problem presented by this interstate local exchange is not one of separating different services, but rather is a problem of allocating a single service between regulatory jurisdictions. Under the method employed by the company, property, revenues, and expenses assignable to the area are correctly divided between the two jurisdictions in the same proportions.

In this case the company used the same methods in determining the Ohio intrastate portion of its property, revenues and expenses that we accepted in the company's last case, except for modification in accordance with the Charleston Plan. There is nothing in the record in this case that persuades us to reverse our previous decision in this company's last case. Accordingly, we find that the company's methods of determining the Ohio intrastate portion of its property, revenues, and expenses were correct.

Rate Base

The date certain in this case is July 1, 1952. The company submitted two Ohio intrastate rate bases as of this date, the one being $98,799,779 and the other being $92,213,273. The first rate base was arrived at by deducting existing depreciation from the reproduction cost new of the company's Ohio intrastate property, whereas the second rate base was arrived at by deducting the applicable portion of the depreciation reserve from the reproduction cost new of the company's Ohio intrastate property.

These two rate bases were developed in the following manner:

Acct	Title	Reproduction Cost New of July 1, 1952, Property at July 1, 1952, Cost Level — Total Company Property	Ohio Intrastate Portion
100.1	Plant in Service	$140,542,096	$111,417,010
100.2	Plant under Construction	2,736,825	2,232,889
122	Material and Supplies	1,010,884	805,870
	Cash Working Capital	1,250,000	959,660
	Total	$145,539,805	$115,415,429

The company's study of the per cent condition of its property showed the amount of depreciation existing in its Ohio intrastate property on the date certain to be $16,615,650. Subtracting this amount from the Ohio intrastate reproduction cost new produces a reproduction cost new less existing depreciation of $98,799,779, which is the amount of the first rate base submitted by the company.

The portion of the company's depreciation reserve applicable to its Ohio intrastate property as of the date certain is $23,202,156. Subtracting this amount from the Ohio intrastate reproduction cost new produces a reproduction cost new less depreciation reserve of $92,213,273, which is the amount of the second rate base submitted by the company.

The engineering report that was attached to and made a part of the secretary's report found that the value claimed by the company is reasonably correct, but that the company had included Telephone Plant under Construction in its rate base which according to the past decisions of this Commission is not property used and useful and therefore should be deducted from the rate base. The engineering report further found that the company's depreciation reserve exceeds the existing depreciation and that the reserve has been invested in plant. The engineering report therefore concluded that the net value would have to be derived by deducting the depreciation reserve rather than existing depreciation, pursuant to Columbus v. Public Utilities Commission (1950) 154 Ohio St 107, 86 PUR NS 496, 93 NE2d 693. This resulted in the finding of a rate base in the amount of $89,980,384 which is the same as the $92,213,273 rate base submitted by the company when Telephone Plant under Construction in the amount of $2,232,889 is eliminated therefrom.

I

[3] The company contends that it is improper to exclude Telephone Plant under Construction—Account 100.2, from the rate base where the entire depreciation reserve is deducted in arriving at the net value, since a substantial portion of the construction work has obviously been financed from the depreciation reserve. Although we are impressed with the logic of this argument and believe that there is considerable merit to the contention that Telephone Plant under Construction should be included under these circumstances, we will nevertheless follow our past decisions and exclude Telephone Plant under Construction from the rate base since, as will hereinafter be shown, the resulting rate of return will not be unreasonable or excessive whether or not Telephone Plant under

Construction is included in the rate base.

II

[4] The city and the Merchants have agreed that it is necessary for the company to carry the amount of Material and Supplies included by it in its rate base but they contend that a substantial portion of this account should be excluded from the rate base on the theory that this portion is held for new construction and that the cost of carrying the portion so held will be capitalized as Interest during Construction. However, the Uniform System of Accounts which has been prescribed by the Federal Communications Commission and adopted by this Commission does not permit the company to capitalize interest on any of the property in the Material and Supplies account. Eliminating a substantial part of the property in this account from the rate base would therefore have the effect of denying the company the right to earn on the value of the Material and Supplies that it is compelled to carry to meet everyday service requirements. Accordingly, we find that the amount of Material and Supplies claimed by the company should be included in the rate base.

III

[5] The city and the Merchants contend that the rate base should be reduced by an amount which they have computed as the company's service connection charge of $2.50 multiplied by the total number of telephones in service as of June 30, 1952, on the theory that the service connection charge is a contribution of capital by the customers. In other words, the city and the Merchants capitalize the revenues. Therefore, to be consistent they should capitalize the expenses and if the expenses would be capitalized the cost would be considerably more than the revenues from the service charge. Therefore, instead of a deduction from the rate base on this theory there would be an addition to the rate base. The related expenses to the service connection charge would have to be deducted from the operating expenses and an adjustment made for income tax purposes which in the end would produce a higher rate base than that claimed by the company and the return after adjusting for taxes would produce a rate of return less than that claimed by the company. However, the classification of accounts specifies that the service connection charge is operating revenue and the expenses connected therewith are operating expenses. Therefore, the reduction of revenues as made by the city and the Merchants and the reduction of the rate base is unwarranted and we so find.

IV

[6] The city and the Merchants contend that the rate base should be reduced by the amount of certain accruals on the theory that they represent funds furnished by the customers that have been invested in the company's plant. Taxes Accrued and Advanced Billing and Payments account for the major portion of this deduction. Other accruals which the protestants claim should be deducted are Customers' Deposits and Rents Accrued. The company concedes that it has been temporarily using these accruals to finance additions to its plant since 1948, but contends that its

reason for doing so is the pressure under which it has been operating in an effort to keep the growth of its plant on a level to meet the demands upon it for service and that this expansion has been so rapid and so constant and the company's earnings have been such that it was not deemed advisable to undertake the financing of this property on a piecemeal basis. The company further contends that the practice of financing its plant out of accruals is not a sound one, is not its normal practice, and cannot be continued indefinitely.

Since the amount of billing against customers that was unpaid on June 30, 1952, the date certain, was considerably more than the amount of Advance Billing and Payments as of the same date, it appears that the company has not obtained money from Advance Billing and Payments which it has invested in plant and we so find.

The protestants' witness admitted that he knows of no instance where the amount of these accruals has been deducted from the rate base for rate-making purposes. He also admitted that if the company had borrowed the money with which to build the plant or had obtained the money by the issuing of securities, it could not be deducted from the rate base. The evidence in this case shows that when the company used accruals for construction purposes, it later had to borrow from the banks funds to pay its taxes and other items which it would have used the accrual funds to pay. Company witnesses further testified that the company would never have undertaken to use the accruals for construction purposes unless it had been previously assured by the banks that it could borrow the money with which to pay its taxes and other items for which the accrual money would have been used. It appears to us, therefore, that the use of these accruals constituted nothing more than a short-term borrowing of the accrual funds for plant construction which were later replaced by funds borrowed from the banks. If the money had been borrowed from the banks first the protestants admit that it could not be deducted from the rate base. The mere postponement of the time for borrowing the money does not seem to us sufficient justification for deducting these accruals from the rate base.

It further appears to us that if these accruals were deducted from the rate base, the company would be required to continue this practice permanently in order to realize the rate of return which we will find to be fair and reasonable. We do not believe that it would be to the best interests of the company or of the ratepayers for this Commission to take action that would bring about this result. Accordingly, after carefully considering the contentions of the protestants, we are of the opinion and find that there should be no deductions from the rate base for this item.

Revenues and Expenses

The revenues and expenses submitted by the company are those for the first six months of 1952, adjusted and annualized and projected to reflect the station development and volume of business as of the close of the 6-month period. The Ohio intrastate income available for fixed charges, as submitted by the company, amounted to

$3,728,035. The proposed rates will produce additional gross annual revenue from Ohio intrastate operations in the amount of $4,637,436 which will increase the income available for fixed charges to $5,229,767. This latter amount is a return of 5.29 per cent on the company's first rate base and a return of 5.67 per cent on the company's second rate base. Consistently with the inclusion of Telephone Plant under Construction in its rate bases, the company has included Interest during Construction as income.

The accounting report that was attached to and made a part of the secretary's report found that the income available for fixed charges from Ohio intrastate operations under the proposed rates would be $5,148,240. This figure is the same as the $5,229,767 income submitted by the company when Interest during Construction in the amount of $81,527 is eliminated therefrom. The accounting report properly eliminates Interest during Construction from the income due to the fact that the engineering report excluded the construction work in progress from the rate base. The amount of income available for fixed charges found by the accounting report would yield a rate of return of 5.72 per cent on the rate base recommended by the engineering report.

I

The city and the Merchants have criticized the company's use of its revenues and expenses for a 6-month period and contend that the 12-month figures for the calendar year 1952 should be used instead. However, this argument overlooks the fact that, in testing the reasonableness of rates, there must be a close correlation between the revenues and expenses, on the one hand, and the rate base, on the other hand, and that the company has accomplished this by projecting its 6-month statement to reflect station development and volume of business as of the date certain used for the rate base. Accordingly, we find that the company's projected revenue and expense statement is appropriate for this proceeding.

II

[7] In its revenue and expense statements, the company made an adjustment to spread the additional expense caused by this rate case, plus the unamortized portion of the preceding case, over a 3-year period. The 3-year period was employed in view of the fact that approximately three years had elapsed between the decision in the company's last rate case and the filing of the present case.

The city and the Merchants have eliminated all rate case expenses from the statements which they submitted, including both the unamortized portion of the preceding rate case expenses and the wages of regular employees that were charged to the present rate case. This was done on the theory that these expenses should be eliminated for the purpose of testing the validity of the present rates and that they could be added back at the conclusion of the hearing when all costs had been ascertained.

The protestants have conceded that the company is entitled to a rate increase in the amount of $1,058,553 so that it would appear that no useful purpose would be served by excluding rate case expenses in determining the

reasonableness of the present rates. So far as appears from the record, the protestants have not questioned the propriety of the rate case expenses claimed by the company and we therefore believe that they should be allowed in full since it is conceded that the company is entitled to a substantial rate increase and since the 3-year period of amortization is reasonable in light of the company's past experience. Accordingly, we find that the rate case expenses claimed by the company should be allowed.

III

[**8**] Included in the expenses submitted by the company were certain payments into the pension fund that has been established under its pension plan. These payments included the regular annual accruals plus the so-called freezing payment, which is an amount necessary to arrest the growth of the unfunded actuarial reserve requirement, and an amount to reduce the unfunded requirement. In 1945 the company undertook a program of amortizing this unfunded reserve requirement over a 10-year period pursuant to the provisions of the Internal Revenue Code and the regulations of the Federal Treasury Department permitting the deductibility of these payments over such a period and company witnesses have testified that the program represented good business policy in times of high tax rates since the payments under the 10-year program are deductible for Federal income tax purposes.

The city and the Merchants contend that the amount to reduce the unfunded requirement should not be included in the expenses on the theory that the reduction is a stockholders' responsibility and that if the payment is to be allowed, the unpaid balance should be spread over a period of at least five years for rate case purposes. The city has cited numerous cases and claims that the nation-wide weight of authority supports its position almost 100 per cent. However, a careful check of these authorities establishes that all allowed the freezing payment and not one involved the question of the amortization or reduction of the unfunded actuarial reserve requirement.

It is apparent that the amortization payments will eventually relieve the company of the necessity of making the freezing payments. We therefore believe that the amortization payments are entitled to much the same consideration as the freezing payments and under the city's own cases the freezing payments appear to be generally allowed. Moreover, the protestants' witness and exhibits allowed the freezing payment in this case.

Even though the amortization payments may be concluded in 1954, we do not believe that adjustment of the expenses for that purpose is warranted unless we could adjust for the other changes that will undoubtedly take place in other expense items during the same period. This, of course, we cannot do. Accordingly, we find that the pension expenses claimed by the company should be allowed.

IV

[**9**] The city and the Merchants contend that the Federal excess profits taxes on the company's anticipated income under the proposed rates should not be allowed as operating expenses

in testing the reasonableness of the proposed rates.

The Merchants claim that the allowance of excess profits taxes as operating expenses in a rate case is an open question in Ohio, but we do not feel free to disregard the decision of the supreme court in Cincinnati v. Public Utilities Commission (1950) 153 Ohio St 56, 83 PUR 41, 90 NE 2d 681. Paragraphs 2 and 3 of the syllabus in that case are as follows:

"2. The general rule is that validly imposed taxes of all kinds paid by a utility may properly be considered as an operating expense of such utility for rate-making purposes.

"3. Excess profits taxes paid by a utility to the Federal government may be considered by the Commission as an operating expense of the utility, particularly where no objection is registered thereto at the hearings before the Commission."

We cannot regard a statement in the syllabus of a decision of the supreme court as dictum. Furthermore, in the opinion in that case it is stated that it is the Commission's duty to accord the company a fair and reasonable return and that in arriving at such figure all legitimate taxes are entitled to consideration. 153 Ohio St at p. 59, 83 PUR NS at p. 44. It is clear from the opinion that the court did not refuse to determine the issue, as the Merchants contend, but in fact determined it, and that the circumstance that the allowance had not been contested before us was simply an additional reason for the court's decision.

In any case, if the allowance of excess profits taxes has been left to our discretion, we believe that we should exercise that discretion in accordance with the general rule that validly imposed taxes of all kinds are properly treated as operating expenses for rate-making purposes. The Federal excess profits tax is certainly a validly imposed tax and therefore should be treated as an operating expense.

Both the city and the Merchants argue further that we should disregard excess profits taxes because, as they contend, the tax expires by its terms June 30, 1953. In fact, as the company has pointed out, the tax applies for the entire taxable year, in proportion to the part of the taxable year falling before July 1, 1953, so that even if the tax is not extended the company will incur excess profits tax liability if it has income subject thereto in 1953.

The protestants claim that the allowance of excess profits taxes as an operating expense in this case will result in a windfall to the company when the excess profits tax is eliminated, but we cannot predict what changes may have occurred in other expense items by that time. As the record in this case shows, one year after the repeal of the World War II excess profits tax, the company's net earnings per telephone were lower than they had been before the repeal.

This Commission has continuing jurisdiction over the rates. Therefore, if this law is not re-enacted, or if other expenses are reduced in the future, the Commission can always issue a citation order if conditions permit and the company would be required to show cause why their rates should not be reduced.

All parties to this case agree that we must base our decision on present facts, and not on speculation. Pres-

ent facts include the excess profits tax, and we must therefore consider it with all other present taxes. Accordingly, we find that excess profits taxes at the present rates should be considered in testing the reasonableness of the company's proposed rates, and we will so consider them.

Rate of Return

[10] The company presented two witnesses on the subject of rate of return—Dr. Herbert B. Dorau and Mr. Jackson Martindell. Dr. Dorau testified that a fair rate of return applicable to the company's Ohio intrastate operations is not less than 6.25 per cent. Mr. Martindell testified that a fair rate of return applicable to the company's Ohio rate base would be from 6.75 per cent to 7 per cent.

The city and the Merchants presented Mr. Fred Kleinman as a witness on rate of return. He testified that a fair rate of return on the company's Ohio intrastate operations is 5.2 per cent.

Both of the company's witnesses based their conclusions as to a fair rate of return largely on studies of the current cost of capital. Dr. Dorau's conclusion being based on the current average dollar cost of capital as of the date certain, and Mr. Martindell's conclusion being based on a current cost of capital derived from a historical cost of capital over a period of three and a half years.

The witness for the city and the Merchants, on the other hand, based his conclusion as to a fair rate of return not on the current cost of capital but on his opinion of the fair rate of return allowed to utilities such as this company during the 1920's and early 1930's and on a factor developed by him as representing the relationship between the cost of money in 1953 and the cost of money in the 1920's and early 1930's. He testified that he thought that back in that period a company like Cincinnati and Suburban would have been allowed no more than 6½ per cent on a reproduction cost rate base. To this he applied his factor of 80 per cent as representing the relationship between the cost of money in 1953 and the cost of money in the 1920's and early 1930's, which produced the figure of 5.2 per cent.

Mr. Kleinman did not support either his use of the 6½ per cent or his use of the 80 per cent. With regard to his use of the 6½ per cent, he testified as follows:

Q. Now, Mr. Kleinman, you stated that during the 1920's and early 1930's, the fair rate of return allowed a utility such as the Cincinnati & Suburban Bell generally did not exceed 6½ per cent. Where did you get that figure?

A. Based on judgment, reviews of Commission decisions over a period of years. Back in the earlier part of the period at some time it's difficult to find out exactly what a Commission did find as the fair rate of return, but based on my years of experience I think that back in that period a company like Cincinnati & Suburban would have been allowed no more than 6½ per cent on a reproduction cost rate base.

There is nothing in the record in this case that enables us to test the basis for Mr. Kleinman's 6½ per cent

in order to determine the validity of its use.

The record does disclose the basis for Mr. Kleinman's 80 per cent factor. He based this figure on an exhibit showing, for the Bell System, the amount of money and percentage rate on capital required yearly from 1935 through 1952 to pay the interest charges on its debt capital, the dividends on its preferred stock, a 7 per cent dividend on the common stock of subsidiary companies outstanding in the hands of the public, and a dividend of $9 per share on outstanding common stock of American Telephone and Telegraph Company.

Mr. Kleinman's use of a $9 dividend as representing the requirement on American Telephone and Telegraph Company stock each year has the result that the trend shown by his exhibit represents only the change in rates on debt capital and the change in the ratio of debt capital to total capital. No changes in equity costs are reflected, although it is obvious that, since to a considerable degree the trend shown is the result of an increase in the Bell System debt ratio, the cost of equity capital would increase. Dr. Dorau's exhibit showed that the debt portion of Bell System capital was 27.4 per cent at the end of 1935 and 43.1 per cent at the end of 1951, and that the earnings-price ratio on American Telephone and Telegraph Company common stock was 4.78 per cent in the last quarter of 1935 and 7.48 per cent in the last quarter of 1951.

Furthermore, even with respect to debt capital Mr. Kleinman's exhibit does not show the change in cost of debt capital from year to year but only the cumulative effect on annual interest payments of all changes in the cost and amounts of debt capital up to and including that year.

It is apparent that the 80 per cent factor developed by Mr. Kleinman has not been shown to be representative of the change in cost of money in 1953 as compared to the 1920's and early 1930's.

Since Mr. Kleinman's conclusion as to a fair rate of return is based on two elements, one of which—the $6\frac{1}{2}$ per cent—is entirely without support of record, while the other—the 80 per cent—was based on data which demonstrably fail to support it, we are of the opinion and find that his conclusion is entitled to no weight.

Mr. Kleinman criticized Dr. Dorau's determination of cost of capital on the ground that it did not take into account the deductibility for income tax purposes of interest paid on debt capital. However, Mr. Kleinman in effect admitted that tax savings because of interest payments should not enter into the determination of a fair rate of return when he testified that a fair rate of return for a company is the same whether it is capitalized entirely by common stock or capitalized by both common stock and debt capital. His criticism of Dr. Dorau's testimony was therefore unwarranted.

Accordingly, there being no credible testimony in the record indicating that a rate of return of less than 6.25 per cent is an unreasonable rate of return, we are of the opinion, and so find, that the return of 5.72 per cent which the proposed rates are estimated to produce upon the rate base of July 1, 1952, in the amount of $89,980,384, is not unreasonable.

The protestants further criticize the company's capital structure as being 100 per cent equity. While it has been the company's policy to have a capital structure of 100 per cent equity, nevertheless, as of the date certain, i.e., December 31, 1952, the capital structure of the company was as follows:

	Outstanding stock and surplus	%
Common Stock	$52,277,917.28	79.27
Debt	13,670,000.00	20.73
	$65,947,917.28	100.00%

By way of summary, we find that the company's Ohio intrastate rate base as of July 1, 1952, is $89,980,384, that its income available for fixed charges under the proposed rates would amount to $5,148,240 and that the resulting rate of return of 5.72 per cent is not unreasonable.

In our opinion, for the reasons above given, the rate increases and other changes proposed in the application should be, and the same hereby are, approved and an order will be drawn accordingly. [Order omitted.]

INDIANA PUBLIC SERVICE COMMISSION

Re General Telephone Company of Indiana, Incorporated

No. 24208
August 6, 1953

PETITION *by telephone company for authority to eliminate free service between exchanges; approved.*

Discrimination, § 165 — Telephone exchanges — Free service.

A telephone company was authorized to eliminate free service between one of its exchanges and the exchange of another company where it appeared that while this company rendered free service between the two points, the other company had commenced making a toll charge for calls originating in its exchange and terminating in the exchange of the petitioning company, particularly since there was no substantial difference in circumstances or conditions affecting the service between these points on account of the direction of the calls and since the petitioner's problem in handling free calls had been aggravated because the other company's exchange had been converted to dial operation with no provision being made for receiving free calls.

APPEARANCES: John F. Bodle, Attorney, Stuart, Devol, Branigan & Ricks, Lafayette, for the petitioner; none, for the protestant; William Turner, Assistant Public Counselor, Indianapolis, for the public.

By the COMMISSION: On the 30th day of April, 1953, the General Telephone Company of Indiana, Inc., Shirley, Indiana, filed with the Public Service Commission of Indiana its petition for authority to eliminate free telephone service between Shirley, Indiana, and Willow Branch, Indiana.

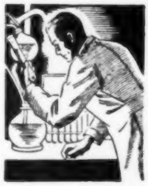
Pursuant to notice by publication as required by statute, a public hearing was held in the above-entitled cause in the rooms of the Commission, 401 State House, Indianapolis, Indiana at 2:00 P.M., D.S.T., on Wednesday, July 1, 1953, with appearances as above noted.

The evidence shows that General Telephone Company of Indiana, Inc., the petitioner herein, owns and operates a local telephone exchange and provides exchange service at Shirley, Indiana; that under petitioner's present tariff provisions it provides free telephone service for its patrons in Shirley, Indiana, on calls originating in Shirley, Indiana, and terminating in Willow Branch, Indiana; that evidence further shows that the exchange located at Willow Branch is owned and operated by the Hancock Rural Telephone Company; that the said Hancock Rural Telephone Company makes a toll charge for calls that originate in Willow Branch and terminate in Shirley; that there is no substantial difference in circumstances or conditions affecting the service between these points on account of the direction of the calls; that this situation creates an unlawful discrimination and preference between the two exchanges; that on the 4th day of April, 1953, the exchange at Willow Branch was converted to dial operation and no provision was made for receiving free service calls originating in Shirley, Indiana; that by reason of this conversion the petitioner, in order to continue its free service, has arranged temporarily with the Knightstown Telephone Company to handle its free service calls destined for Willow Branch through its exchange located at Wilkinson, Indiana; that the evidence further shows that the number of circuits and volume traffic now existing between Wilkinson exchange is unable to continue the free service originating in Shirley and routed through the Wilkinson exchange to Willow Branch; that this petitioner is confronted with the problem of routing the free service calls over its other toll lines and by the Indiana Bell Telephone Company at such time that the service to them is terminated by the Knightstown Telephone Company, the owners and operators of the Wilkinson exchange.

The evidence further shows that the petitioner made a traffic study on the free service calls; that said study was made from April 28 to May 1, 1953, and but ten calls were made during that time and within that time on two days included in the period no calls at all were made.

The Commission, having heard and considered the evidence in the above-entitled cause and being duly advised in the premises, now finds the said General Telephone Company of Indiana, Inc., the petitioner herein, should be authorized to eliminate free telephone service between its telephone exchange located at Shirley, Indiana, and the telephone exchange of the Hancock Rural Telephone Company located at Willow Branch, Indiana, and that said petitioner herein be authorized to amend its tariffs now on file with this Commission and to charge for such toll service according to the applicable rates and charges presently provided in its tariffs.

Industrial Progress



A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.

PG&E to Spend $175,000,000 Yearly for 3 Years

Pacific Gas & Electric Company expects to spend about $175,000,000 yearly for three years on over-all plant construction, according to James B. Black, president.

The company's budget for this year is estimated at $190,000,000, slightly under its record in a period which since the end of World War II has seen Pacific Gas & Electric putting $1,100,000,000 into plant additions.

Mr. Black indicated that electric expansion from now on will be very largely in new steam plants.

Five Appliance Promotions Planned by EEI for 1954

Five new promotional campaigns for major electrical appliances featuring the new industry slogan "Be Modern . . . Live Electrically" are now being prepared by the Residential Promotion Committee of Edison Electric Institute. The months in which the various appliances are to be featured coincide with the 1954 industry-wide campaign calendar announced earlier this year.

Five programs to be used in 1954 will promote the four major appliances, the electric range, the electric water heater, the electric dryer and the electric freezer.

For each campaign an attractive display kit and a consumer folder featuring the theme will be produced by EEI. With these items serving as the focal point, utilities, manufacturers, dealers, and others will be encouraged to conduct local campaigns using locally produced items or those available from commercial suppliers. A detailed announcement of each campaign will be mailed to the industry about three months in advance of the campaign date.

The new slogan "Be Modern . . . Live Electrically" was selected by industry representatives as the one which could most readily be adapted to all advertising and promotional activities of the industry.

AT&T Plans $29,000,000 Construction Program

A new, $29,000,000 nation-wide construction program for the long lines department of the American Telephone & Telegraph Company and 13 associated companies was outlined recently.

The program provides for a new telephone plant in every state except South Dakota. It calls for two million miles of telephone channels and one million, four hundred thousand miles of private line telegraph and teletypewriter channels.

In addition, extensive additions in audio facilities for television are provided. The program will be carried out in 1954 if approved by the Federal Communications Commission, which received the application recently.

Major projects include a coaxial cable between West Palm Beach and Miami, Fla., and a telephone cable between West Chazy, N. Y., and the United States-Canada boundary.

The company also plans more telephone circuits in the Chicago-New York area by equipping two additional coaxial tubes between Chicago and Newark, N. J.

G-E Bulletin Describes Long-scale Switchboard Instruments

A new 24-page bulletin on long-scale switchboard instruments has been announced as available from the General Electric Company, Schenectady 5, New York.

Designated GEC-218C, the publication contains a description of the company's AB-DB-18 and AB-DB-16 instrument lines as well as principles of operation, characteristics, and specifications. Prices and dimensions also are provided.

New Truck Body for Line Construction Work

Morysville Body Works, Boyertown, Pennsylvania, announces a new addition to their line of standard and special utility truck bodies—the Morysville Line Construction Body.

Designed for telephone, power and light companies, as well as for other utility service, the Morysville Line Construction Body is available in lengths from 8 to 13 feet overall, for single or dual-wheel chassis rated from ½ ton to 2 tons, with CA dimensions from 48" to 102".

Designed specifically to mount a winch and

(*Continued on page* 26)

derrick, the line construction body is fitted with a sliding roof. Other interior features include a window at the front and three deep-lipped stowage shelves running all around.

On the outside, the body is equipped with ladder hooks, hand grips, and three or more large compartments on either side, well arranged for tool and parts storage. Each of these compartments is fitted with a first-quality tumbler-type lock.

For further information on the Morysville Line Construction Body, write Morysville Body Works, 813 South Reading avenue, Boyertown, Pennsylvania.

AGA Dealer Program Wins Direct Mail Award

American Gas Association has been awarded a 1953 Best of Industry Award of Merit for its dealer sales program, "Pattern for Profit." The Direct Mail Advertising Association, Inc., sponsored the national competition in which some of America's largest industries competed.

"Pattern for Profit" is an eight-unit packaged program designed to help gas companies achieve closer sales liaison with the nation's dealers who today sell more than 85 per cent of all appliances purchased by the American homemaker.

"Pattern for Profit" was sponsored by the AGA General Promotional Planning Committee and financed by the industry's PAR (Promotion, Advertising and Research) Program. The program itself was prepared by the Dealer Sales Committee of the AGA Residential Gas Section.

Idaho Power Plans $261,000,000 Program Over 10 Years

Idaho Power Company announced a 10-year construction program, estimated to cost $261,000,000 and approximately triple the company's present hydroelectric generating capacity of 362,000 kilowatts.

This construction budget amounts to approximately double the company's present plant investment. Running through 1962, it includes this year's construction expenditures, which exceed $9,600,000.

Included in the budget is an estimated $133,000,000 cost for Idaho Power's three projected dams and power plants in the Snake River, for which a license application is now the subject of hearings before the Federal Power Commission.

Utility Sales Ideas Featured in New Servel Publication

Successful appliance sales programs by utility companies are featured in the first issue of a new publication, "Idea Exchange," recently off of the press.

The bulletin is sponsored and published by

(*Continued on page* 28)

Servel, Inc. Its editor is Dick Geier. Material is being compiled for "Idea Exchange" with the help of the company's advertising, sales promotion and public utility departments, under the direction of Robert M. Stevens, advertising manager; David K. Patterson, sales promotion manager, and A. E. Lee, utility manager.

Successful sales campaigns described and pictured in the first issue of "Idea Exchange" include programs sponsored by the Southern California Gas Co. and the Southern Counties Gas Co., both of Los Angeles, and the South Jersey Gas Company, of Atlantic City, N. J.

Sangamo Literature on New Type B Time Switch

SANGAMO's new Type B Time Switch, ($13.50 list) NEMA Standard 30 ampere, single-pole, single-throw, steel-cased switch, is illustrated and described in Sangamo Catalog Sheet No. 1020. Many operating features are listed.

Copies may be obtained from the Sangamo Electric Company, Springfield, Illinois.

Consumers Power's Capacity Reaches 1,300,000 kw.

ON November 27, 1953, the electric generating capacity of Consumers Power Company, supplying nearly 2,500,000 Michigan people, reached the 1,300,000 kilowatt mark, more than doubled since World War II.

The occasion was the placing in service of the third unit at the new 276,000 kilowatt Justin R. Whiting steam plant. The first two units began operation last year, and the latest turbine unit of 106,000 kilowatts raises plant capacity to 370,000 horsepower.

According to Federal Power Commission reports, this plant rates among the nation's high-efficiency leaders in the "9,000-10,000 BTU bracket." The plant operates at 1,450 pounds steam pressure, and 1,000 degree temperature.

The plant is named in honor of Justin R. Whiting, chairman of the board of Consumers Power Company.

Catalytic Gasification of Hydrocarbons to Produce Utility Gases

RESULTS of a pilot plant investigation of the catalytic cracking of hydrocarbons of low molecular weight, in the presence of steam and air, as a method of producing equivalents of various types of utility gases, manufactured and natural, are presented in IGT Research Bulletin No. 6, "Pilot Plant Catalytic Gasification of Hydrocarbons," by C. H. Riesz, P. C. Lurie, C. L. Tsaros and E. S. Pettyjohn.

Hydrocarbons gasified in this study included natural gas, refinery oil gas, propane, butane, gasoline, kerosene, crude naphtha and light gas oil. It is shown that cracking them to produce a low heating value "carrier" gas, and subsequent enrichment of this carrier gas with natural gas or propane, is a means of providing base load substitutes or peak load supplements for utility systems distributing carbureted water gas, coke oven-carbureted water gas mixtures, natural gas, or manufactured gas-natural gas mixtures.

The work was conducted by the Institute of Gas Technology, Chicago, under the sponsorship of the American Gas Association, with the coöperation and assistance of the Philadelphia Electric Company at the latter's Chester, Pa., station.

M. H. Hobbs Appointed Mgr. For Westinghouse Switchgear

M. H. HOBBS has been appointed manager of Westinghouse Electric Corporation's Switchgear Division, it was announced recently by L. B. McCully, vice president and general manager of the Westinghouse East Pittsburgh Divisions.

Mr. Hobbs succeeds J. B. MacNeill, who joins the staff of John K. Hodnette, vice president in charge of industrial products.

Public Service of Colorado to Order 100,000 kw. Generator

PUBLIC SERVICE COMPANY of Colorado, with a 100,000-kilowatt generator under construction at its Arapahoe steam power plant, expects to order another unit of like size soon for installation elsewhere, according to company officials.

The unit now being erected will raise the Arapahoe plant's total generating capacity to 232,000 kilowatts. It is scheduled for completion in 1955. The company expects to have the additional unit in operation by 1957. Cost of the present expansion at Arapahoe is about $17,000,000.

John E. Loiseau, president, said construction costs will average $20,000,000 a year through 1957 for both gas and electric facilities. The 1954 construction budget is about $22,000,000, 70 per cent electric and 30 per cent gas.

Public Service of N. J. Lights up for Christmas

WITH its Newark Terminal building leading the way, Public Service Electric and Gas Company turned on the Christmas lighting decorations on November 25th to usher in the 1953 holiday season. Other Public Service commercial offices throughout the state have also been adequately decorated for the occasion. Approximately 18,000 vari-colored lamps have been used to illuminate the decorations.

On the upper left portion of the building is displayed a 40-foot illuminated star with light rays extending from it for more than 30 feet. This star is controlled by an automatic timer which is set to give forth a twinkling effect.

Candles ranging from 15 to 45 feet, containing unique lighting effects, are placed across the face of the building to the right of the star. The upper edge of the building is outlined with colored light garlands.

An illuminated "Season's Greetings" sign is displayed at the seventh floor level of the building. Twelve-foot Christmas tree units are set in each of the five marquee arches at the second floor level.

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NEW INTERNATIONAL MEDIUM-DUTY FOUR-WHEEL DRIVE TRUCKS

For Off-Highway or Highway Operation

Now, INTERNATIONAL advanced engineering makes possible another development in transportation efficiency. *Two new medium-duty four-wheel drive models* open new possibilities for truck operators in scores of fields.

You can haul men, tools, equipment—through mud, sand, snow—over terrain where conventional trucks can't go. With front axle disengaged, you can operate normally on the highway.

Tough-job engineered. These new models are built for the toughest kind of work. They give the low operating and maintenance cost and long life that have made INTERNATIONAL the heavy-duty leader for 21 years.

INTERNATIONAL 4x4 models have the stamina, ruggedness for toughest jobs. See one today. See how it fits your work. See your INTERNATIONAL Dealer or Branch for all the facts.

INTERNATIONAL HARVESTER COMPANY
CHICAGO

New INTERNATIONAL R-160 (4x4) with public utility equipment and front-end winch. GVW rating, 11,000 lbs. Famous Comfo-Vision cab.

Brief Specifications of these new INTERNATIONAL medium-duty 4x4 models

Two chassis models. Model R-140 (4x4)—130-inch wheelbase, 60-inch CA; 142-inch wheelbase, 72-inch CA, GVW rating 11,000 lbs. **Model R-160 (4x4)**—154-inch wheelbase, 84-inch CA; 172-inch wheelbase, 102-inch CA, GVW rating 15,000 lbs.

All-truck power. Model R-140 (4 x 4), 100-hp. Silver Diamond 220 valve-in-head engine. Model R-160 (4x4), 108-hp. Silver Diamond 240 valve-in-head engine.

Eight forward speeds, two reverse. Transmission has 4 forward speeds, 1 reverse, 2-speed transfer case.

Easily converted for highway use. Special transfer case permits disengaging of front axle for normal 2-wheel drive operation.

Transmission power take-off openings on right and left side to handle front-mounted winch.

Adaptable to variety of bodies, equipment. Because of wheelbase range and CA dimensions, chassis are adaptable to wide variety of specialized uses.

International Harvester Builds McCORMICK® Farm Equipment and FARMALL® Tractors . . . Motor Trucks . . . Industrial Power . . . Refrigerators and Freezers

Better roads mean a better America

INTERNATIONAL® TRUCKS

"Standard of the Highway"

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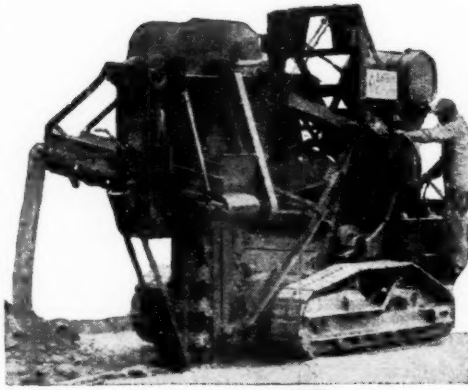
FOR LOWEST COST PER FOOT OF TRENCH IN ALL SEASONS

Barber-Greene

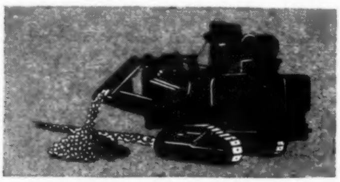
VERTICAL BOOM

HEAVY DUTY DITCHER



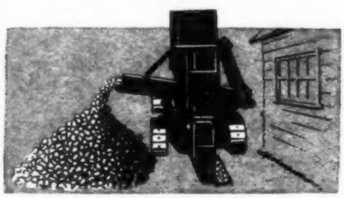
The B-G 44-C is winning more friends among utilities every day because it's saving time and money on every job.

Why? Because with its Vertical Boom, the 44-C digs in any soil at any time of the year . . . digs right up to sidewalks, foundations, underground pipe . . . digs all the ditch, leaving no ramp to remove by hand . . . digs clean and straight up to 24" wide, 8'3" deep.

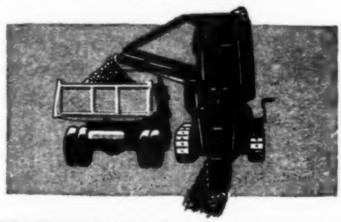


GAS, WATER, SEWER DISTRIBUTION — Ideal for public utility use. Works in any weather, through frozen ground, asphalt pavement, clay or wet gumbo to accurate depths and widths. Vertical Boom jumps underground pipe, sidewalks, reducing hand labor to minimum.

UNCOVERING JOINTS — wasting no digging effort, the 44-C cuts straight down to joints through toughest formations with minimum openings, thus reducing repaving costs. Sensitive overload release, precision cutting and accurate control make this the practical machine.



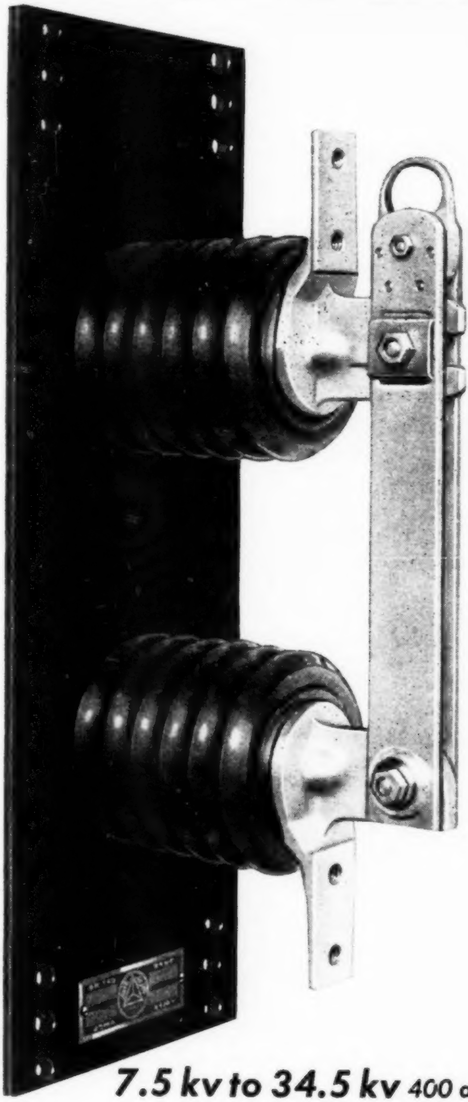
CRAMPED QUARTERS — offer no operating difficulties with the compact 44-C; rapid maneuvering, full crawler traction, narrow over-all width and close-hung Vertical Boom allow ditching close to walls, foundations, etc.



DISCHARGE TO TRUCK — on some city contracts excavated material must be removed immediately. With the 8'3" boom on the 44-C, the discharge height is sufficient to load spoil directly to truck, depending on depth of trench. Spoil conveyor discharges to either side.

FOR FULL INFORMATION SEE YOUR BARBER-GREENE DISTRIBUTOR OR WRITE

Barber-Greene AURORA, ILLINOIS



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INDOOR SWITCHING EQUIPMENT

Combines Economy and Service

The complete line of Delta-Star Indoor Switching Equipment has been proven by wide-spread acceptance and use through years of service. Exclusive features of design reduce overall cost by reducing installation time and keeping maintenance expenditures at an absolute minimum.

Construction is simple and sturdy. High pressure silvered contacts prevent oxidation and reduce current loss. These switches comply with all NEMA standard ratings and will carry full rated loads continuously without undue heating. Engineered and built throughout to Delta-Star exacting standards for long and efficient life.

***7.5 kv to 34.5 kv** 400 amp. to 500 amp., Hook or Group Operated*

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Public Utilities

FORTNIGHTLY

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to December 17, 1953

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WASHINGTON, D. C.

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(This section of the magazine, which comprises the decisions, orders, and rulings of courts and commissions, is too voluminous to be included in this index. These Reports are published in five bound volumes a year, together with the PUR Annual (Index), and may be ordered from the publishers, PUBLIC UTILITIES REPORTS, INC., 309 Munsey Building, Washington 4, D. C.)

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